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(54) Title: GENES, COMPOSITIONS, KITS, AND METHOD FOR IDENTIFICATION, ASSESSMENT, PREVENTION AND THERAPY OF OVARIAN CANCER

(57) Abstract: The invention relates to compositions, kits, and methods for detecting, characterizing, preventing, and treating human ovarian cancers. A variety of novel markers are provided, wherein changes in the levels of expression of one or more of the markers is correlated with the presence of ovarian cancer.

- 1 -

COMPOSITIONS, KITS, AND METHODS FOR
IDENTIFICATION, ASSESSMENT, PREVENTION, AND THERAPY OF
OVARIAN CANCER

5 RELATED APPLICATIONS

The present application claims priority to U.S. provisional patent application serial no. 60/191,031 filed on March 21, 2000, U.S. provisional patent application serial no. 60/207,124, filed on May 25, 2000, U.S. provisional patent application serial no. 60/211,940, filed on June 15, 2000, U.S. provisional patent application serial no. 10 60/216,820, filed on July 7, 2000, U.S. provisional patent application serial no. 60/220,661, filed on July 25, 2000, and U.S. provisional patent application serial no. 60/257,672, filed on December 21, 2000, all of which are expressly incorporated by reference.

15 FIELD OF THE INVENTION

The field of the invention is ovarian cancer, including diagnosis, characterization, management, and therapy of ovarian cancer.

BACKGROUND OF THE INVENTION

20 Ovarian cancer is responsible for significant morbidity and mortality in populations around the world. Ovarian cancer is classified, on the basis of clinical and pathological features, in three groups, namely epithelial ovarian cancer (EOC; >90% of ovarian cancer in Western countries), germ cell tumors (*circa* 2-3% of ovarian cancer), and stromal ovarian cancer (*circa* 5% of ovarian cancer; Ozols *et al.*, 1997, *Cancer* 25 *Principles and Practice of Oncology*, 5th ed., DeVita *et al.*, Eds. pp. 1502). Relative to EOC, germ cell tumors and stromal ovarian cancers are more easily detected and treated at an early stage, translating into higher/better survival rates for patients afflicted with these two types of ovarian cancer.

There are numerous types of ovarian tumors, some of which are benign, and 30 others of which are malignant. Treatment (including non-treatment) options and predictions of patient outcome depend on accurate classification of the ovarian cancer. Ovarian cancers are named according to the type of cells from which the cancer is

- 2 -

derived and whether the ovarian cancer is benign or malignant. Recognized histological tumor types include, for example, serous, mucinous, endometrioid, and clear cell tumors. In addition, ovarian cancers are classified according to recognized grade and stage scales.

- 5 In grade I, the tumor tissue is well differentiated from normal ovarian tissue. In grade II, tumor tissue is moderately well differentiated. In grade III, the tumor tissue is poorly differentiated from normal tissue, and this grade correlates with a less favorable prognosis than grades I and II. Stage I is generally confined within the capsule surrounding one (stage IA) or both (stage IB) ovaries, although in some stage I (*i.e.* stage IC) cancers, malignant cells may be detected in ascites, in peritoneal rinse fluid, or
10 on the surface of the ovaries. Stage II involves extension or metastasis of the tumor from one or both ovaries to other pelvic structures. In stage IIA, the tumor extends or has metastasized to the uterus, the fallopian tubes, or both. Stage IIB involves extension of the tumor to the pelvis. Stage IIC is stage IIA or IIB in which malignant cells may be
15 detected in ascites, in peritoneal rinse fluid, or on the surface of the ovaries. In stage III, the tumor comprises at least one malignant extension to the small bowel or the omentum, has formed extrapelvic peritoneal implants of microscopic (stage IIIA) or macroscopic (< 2 centimeter diameter, stage IIIB; > 2 centimeter diameter, stage IIIC) size, or has metastasized to a retroperitoneal or inguinal lymph node (an alternate
20 indicator of stage IIIC). In stage IV, distant (*i.e.* non-peritoneal) metastases of the tumor can be detected.

- The durations of the various stages of ovarian cancer are not presently known, but are believed to be at least about a year each (Richart *et al.*, 1969, *Am. J. Obstet. Gynecol.* 105:386). Prognosis declines with increasing stage designation. For example,
25 5-year survival rates for patients diagnosed with stage I, II, III, and IV ovarian cancer are 80%, 57%, 25%, and 8%, respectively.

- Despite being the third most prevalent gynecological cancer, ovarian cancer is the leading cause of death among those afflicted with gynecological cancers. The disproportionate mortality of ovarian cancer is attributable to a substantial absence of
30 symptoms among those afflicted with early-stage ovarian cancer and to difficulty diagnosing ovarian cancer at an early stage. Patients afflicted with ovarian cancer most often present with non-specific complaints, such as abnormal vaginal bleeding,

- 3 -

gastrointestinal symptoms, urinary tract symptoms, lower abdominal pain, and generalized abdominal distension. These patients rarely present with paraneoplastic symptoms or with symptoms which clearly indicate their affliction. Presently, less than about 40% of patients afflicted with ovarian cancer present with stage I or stage II.

- 5 Management of ovarian cancer would be significantly enhanced if the disease could be detected at an earlier stage, when treatments are much more generally efficacious.

Ovarian cancer may be diagnosed, in part, by collecting a routine medical history from a patient and by performing physical examination, x-ray examination, and chemical and hematological studies on the patient. Hematological tests which may be
10 indicative of ovarian cancer in a patient include analyses of serum levels of proteins designated CA125 and DF3 and plasma levels of lysophosphatidic acid (LPA). Palpation of the ovaries and ultrasound techniques (particularly including endovaginal ultrasound and color Doppler flow ultrasound techniques) can aid detection of ovarian tumors and differentiation of ovarian cancer from benign ovarian cysts. However, a
15 definitive diagnosis of ovarian cancer typically requires performing exploratory laparotomy of the patient.

Potential tests for the detection of ovarian cancer (*e.g.*, screening, reflex or monitoring) may be characterized by a number of factors. The "sensitivity" of an assay refers to the probability that the test will yield a positive result in an individual afflicted
20 with ovarian cancer. The "specificity" of an assay refers to the probability that the test will yield a negative result in an individual not afflicted with ovarian cancer. The "positive predictive value" (PPV) of an assay is the ratio of true positive results (*i.e.* positive assay results for patients afflicted with ovarian cancer) to all positive results (*i.e.* positive assay results for patients afflicted with ovarian cancer + positive assay
25 results for patients not afflicted with ovarian cancer). It has been estimated that in order for an assay to be an appropriate population-wide screening tool for ovarian cancer the assay must have a PPV of at least about 10% (Rosenthal *et al.*, 1998, *Sem. Oncol.* 25:315-325). It would thus be desirable for a screening assay for detecting ovarian cancer in patients to have a high sensitivity and a high PPV. Monitoring and reflex tests
30 would also require appropriate specifications.

- 4 -

Owing to the cost, limited sensitivity, and limited specificity of known methods of detecting ovarian cancer, screening is not presently performed for the general population. In addition, the need to perform laparotomy in order to diagnose ovarian cancer in patients who screen positive for indications of ovarian cancer limits the desirability of population-wide screening, such that a PPV even greater than 10% would be desirable.

Prior use of serum CA125 level as a diagnostic marker for ovarian cancer indicated that this method exhibited insufficient specificity for use as a general screening method. Use of a refined algorithm for interpreting CA125 levels in serial retrospective samples obtained from patients improved the specificity of the method without shifting detection of ovarian cancer to an earlier stage (Skakes, 1995, *Cancer* 76:2004). Screening for LPA to detect gynecological cancers including ovarian cancer exhibited a sensitivity of about 96% and a specificity of about 89%. However, CA125-based screening methods and LPA-based screening methods are hampered by the presence of CA125 and LPA, respectively, in the serum of patients afflicted with conditions other than ovarian cancer. For example, serum CA125 levels are known to be associated with menstruation, pregnancy, gastrointestinal and hepatic conditions such as colitis and cirrhosis, pericarditis, renal disease, and various non-ovarian malignancies. Serum LPA is known, for example, to be affected by the presence of non-ovarian gynecological malignancies. A screening method having a greater specificity for ovarian cancer than the current screening methods for CA125 and LPA could provide a population-wide screening for early stage ovarian cancer.

Presently greater than about 60% of ovarian cancers diagnosed in patients are stage III or stage IV cancers. Treatment at these stages is largely limited to cytoreductive surgery (when feasible) and chemotherapy, both of which aim to slow the spread and development of metastasized tumor. Substantially all late stage ovarian cancer patients currently undergo combination chemotherapy as primary treatment, usually a combination of a platinum compound and a taxane. Median survival for responding patients is about one year. Combination chemotherapy involving agents such as doxorubicin, cyclophosphamide, cisplatin, hexamethylmelamine, paclitaxel, and methotrexate may improve survival rates in these groups, relative to single-agent therapies. Various recently-developed chemotherapeutic agents and treatment regimens

- 5 -

have also demonstrated usefulness for treatment of advanced ovarian cancer. For example, use of the topoisomerase I inhibitor topotecan, use of amifostine to minimize chemotherapeutic side effects, and use of intraperitoneal chemotherapy for patients having peritoneally implanted tumors have demonstrated at least limited utility.

- 5 Presently, however, the 5-year survival rate for patients afflicted with stage III ovarian cancer is 25%, and the survival rate for patients afflicted with stage IV ovarian cancer is 8%.

In summary, the earlier ovarian cancer is detected, the aggressiveness of therapeutic intervention and the side effects associated with therapeutic intervention are
10 minimized. More importantly, the earlier the cancer is detected, the survival rate and quality of life of ovarian cancer patients is enhanced. Thus, a pressing need exists for methods of detecting ovarian cancer as early as possible. There also exists a need for methods of detecting recurrence of ovarian cancer as well as methods for predicting and monitoring the efficacy of treatment. The present invention satisfies these needs.

15

SUMMARY OF THE INVENTION

The invention relates to novel genes associated with ovarian cancer as well as methods of assessing whether a patient is afflicted with ovarian cancer. This method comprises the step of comparing the level of expression of a marker in a patient sample,
20 wherein the marker is listed in Tables 1-2, and the normal level of expression of the marker in a control, *e.g.*, a sample from a patient without ovarian cancer. A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer. Preferably, a protein corresponding to the marker is a secreted protein. Alternatively, the marker
25 can correspond to a protein having an extracellular portion, to one which is normally expressed in ovarian tissue at a detectable level, or both.

In one method, the marker(s) are preferably selected such that the positive predictive value of the method is at least about 10%. Also preferred are embodiments of the method wherein the marker is over- or under-expressed by at least two-fold in at
30 least about 20% of stage I ovarian cancer patients, stage II ovarian cancer patients, stage III ovarian cancer patients, stage IV ovarian cancer patients, grade I ovarian cancer patients, grade II ovarian cancer patients, grade III ovarian cancer patients, epithelial

ovarian cancer patients, stromal ovarian cancer patients, germ cell ovarian cancer patients, malignant ovarian cancer patients, benign ovarian patients, serous neoplasm ovarian cancer patients, mucinous neoplasm ovarian cancer patients, endometrioid neoplasm ovarian cancer patients and/or clear cell neoplasm ovarian cancer patients.

5 In one embodiment of the methods of the present invention, the patient sample is an ovary-associated body fluid. Such fluids include, for example, blood fluids, lymph, ascitic fluids, gynecological fluids, cystic fluids, urine, and fluids collected by peritoneal rinsing. In another embodiment, the sample comprises cells obtained from the patient. In this embodiment, the cells may be found in a fluid selected from the group consisting
10 of a fluid collected by peritoneal rinsing, a fluid collected by uterine rinsing, a uterine fluid, a uterine exudate, a pleural fluid, and an ovarian exudate. In another embodiment, the patient sample is *in vivo*.

 In accordance with the methods of the present invention, the level of expression of the marker in a sample can be assessed, for example, by detecting the presence in the
15 sample of :

- a protein corresponding to the marker or fragment of the protein (*e.g.* using a reagent, such as an antibody, an antibody derivative, or an antibody fragment, which binds specifically with the protein)
- a transcribed polynucleotide (*e.g.* an mRNA or a cDNA), or fragment
20 thereof, having at least a portion with which the marker is substantially homologous (*e.g.* by contacting a mixture of transcribed polynucleotides obtained from the sample with a substrate having one or more of the markers listed in Tables 1-2 fixed thereto at selected positions)
- a transcribed polynucleotide or fragment thereof, wherein the
25 polynucleotide anneals with the marker under stringent hybridization conditions.
- a metabolite which is produced directly (*i.e.*, catalyzed) or indirectly by a protein corresponding to the marker

 The methods of the present invention are particularly useful for patients with an
30 identified pelvic mass or symptoms associated with ovarian cancer. The methods of the present invention can also be of particular use with patients having an enhanced risk of developing ovarian cancer (*e.g.*, patients having a familial history of ovarian cancer,

- 7 -

patients identified as having a mutant oncogene, and patients at least about 50 years of age). The methods of the present invention may further be of particular use in monitoring the efficacy of treatment of an ovarian cancer patient (*e.g.* the efficacy of chemotherapy).

5 The methods of the present invention may be performed using a plurality (*e.g.* 2, 3, 5, or 10 or more) of markers. According to a method involving a plurality of markers, the level of expression in the sample of each of a plurality of markers independently selected from the markers listed in Tables 1-2 is compared with the normal level of expression of each of the plurality of markers in samples of the same type obtained from
10 control humans not afflicted with ovarian cancer. The markers of Tables 1-2 may also be used in combination with known ovarian cancer markers in the methods of the present invention.

 In a preferred method of assessing whether a patient is afflicted with ovarian cancer (*e.g.*, new detection ("screening"), detection of recurrence, reflex testing), the
15 method comprises comparing:

- a) the level of expression of a marker in a patient sample, wherein at least one marker is selected from the markers of Tables 1-2, and
- b) the normal level of expression of the marker in a control non-ovarian cancer sample.

20 A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer.

 The methods of the present invention further include a method of assessing the efficacy of a test compound for inhibiting ovarian cancer in a patient. This method
25 comprises comparing:

- a) expression of a marker in a first sample obtained from the patient and maintained in the presence of the test compound, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and

30 b) expression of the marker in a second sample obtained from the patient and maintained in the absence of the test compound.

- 8 -

A significant difference between the level of expression of the marker in the first sample, relative to the second sample, is an indication that the test compound is efficacious for inhibiting ovarian cancer in the patient. For example, the first and second samples can be portions of a single sample obtained from the patient or portions of pooled samples obtained from the patient.

The invention further relates to a method of assessing the efficacy of a therapy for inhibiting ovarian cancer in a patient. This method comprises comparing:

- a) expression of a marker in a first sample obtained from the patient prior to providing at least a portion of the therapy to the patient, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
- b) expression of the marker in a second sample obtained from the patient following provision of the portion of the therapy.

A significant difference between the level of expression of the marker in the second sample, relative to the first sample, is an indication that the therapy is efficacious for inhibiting ovarian cancer in the patient.

It will be appreciated that in these methods the "therapy" may be any traditional therapy for treating ovarian cancer including, but not limited to, chemotherapy, radiation therapy and surgical removal of tissue, *e.g.*, an ovarian tumor. Thus, the methods of the invention may be used to evaluate a patient before, during and after thereapy, for example, to evaluate the reduction in tumor burden.

The present invention therefore further comprises a method for monitoring the progression of ovarian cancer in a patient, the method comprising:

- a) detecting in a patient sample at a first time point, the expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2;
- b) repeating step a) at a subsequent time point in time; and
- c) comparing the level of expression detected in steps a) and b), and therefrom monitoring the progression of ovarian cancer in the patient.

The invention also includes a method of selecting a composition for inhibiting ovarian cancer in a patient. This method comprises the steps of:

- a) obtaining a sample comprising cancer cells from the patient;

- 9 -

- b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker listed in Tables 1-2 in each of the aliquots; and
- 5 d) selecting one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

In addition, the invention includes a method of inhibiting ovarian cancer in a patient. This method comprises the steps of:

- 10 a) obtaining a sample comprising cancer cells from the patient;
- b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker listed in Tables 1-2 in each of the aliquots; and
- 15 d) administering to the patient at least one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

The invention also includes a kit for assessing whether a patient is afflicted with ovarian cancer. This kit comprises reagents for assessing expression of a marker listed
20 in Tables 1-2.

In another aspect, the invention relates to a kit for assessing the suitability of each of a plurality of compounds for inhibiting an ovarian cancer in a patient. The kit comprises a reagent for assessing expression of a marker listed in Tables 1-2, and may also comprise a plurality of compounds.

25 In another aspect, the invention relates to a kit for assessing the presence of ovarian cancer cells. This kit comprises an antibody, wherein the antibody binds specifically with a protein corresponding to a marker listed in Tables 1-2. The kit may also comprise a plurality of antibodies, wherein the plurality binds specifically with a protein corresponding to a different marker listed in Tables 1-2.

30 The invention also includes a kit for assessing the presence of ovarian cancer cells, wherein the kit comprises a nucleic acid probe. The probe binds specifically with a transcribed polynucleotide corresponding to a marker listed in Tables 1-2. The kit

- 10 -

may also comprise a plurality of probes, wherein each of the probes binds specifically with a transcribed polynucleotide corresponding to a different marker listed in Tables 1-2.

The invention further relates to a method of making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with ovarian cancer. The method comprises isolating a protein corresponding to a marker listed in Tables 1-2, immunizing a mammal using the isolated protein, isolating splenocytes from the immunized mammal, fusing the isolated splenocytes with an immortalized cell line to form hybridomas, and screening individual hybridomas for production of an antibody which specifically binds with the protein to isolate the hybridoma. The invention also includes an antibody produced by this method.

The invention further includes a method of assessing the ovarian carcinogenic potential of a test compound. This method comprises the steps of:

- a) maintaining separate aliquots of ovarian cells in the presence and absence of the test compound; and
- b) comparing expression of a marker in each of the aliquots.

The marker is selected from those listed in Tables 1-2. A significantly altered level of expression of the marker in the aliquot maintained in the presence of (or exposed to) the test compound, relative to the aliquot maintained in the absence of the test compound, is an indication that the test compound possesses ovarian carcinogenic potential.

Additionally, the invention includes a kit for assessing the ovarian carcinogenic potential of a test compound. The kit comprises ovarian cells and a reagent for assessing expression of a marker in each of the aliquots. The marker is selected from those listed in Tables 1-2.

The invention further relates to a method of treating a patient afflicted with ovarian cancer or at risk of developing ovarian cancer. This method comprises enhancing expression of a marker listed in Tables 1-2 or providing to cells of the patient a protein corresponding to a marker listed in Tables 1-2, wherein the marker is underexpressed in patients afflicted with ovarian cancer. The protein can be provided to the cells, for example, by providing a vector comprising a polynucleotide encoding the protein to the cells.

- 11 -

The invention includes another method of treating a patient afflicted with ovarian cancer or at risk of developing ovarian cancer. This method comprises inhibiting expression or overexpression of a marker listed in Tables 1-2 by, e.g., providing to cells of the patient an antisense oligonucleotide complementary to a polynucleotide
5 corresponding to a marker listed in Tables 1-2, wherein the marker is overexpressed in patients afflicted with ovarian cancer.

It will be appreciated that the methods and kits of the present invention may also include known cancer markers including known ovarian cancer markers. It will further be appreciated that the methods and kits may be used to identify cancers other than
10 ovarian cancer.

DETAILED DESCRIPTION OF THE INVENTION

The invention relates to newly discovered genes associated with the cancerous state of ovarian cells. It has been discovered that the level of expression of individual
15 genes, also referred to as markers, and combinations of these genes, correlates with the presence of ovarian cancer in a patient. Methods are provided for detecting the presence of ovarian cancer in a sample, the absence of ovarian cancer in a sample, the stage of an ovarian cancer, and with other characteristics of ovarian cancer that are relevant to prevention, diagnosis, characterization, and therapy of ovarian cancer in a patient.

20

Definitions

As used herein, each of the following terms has the meaning associated with it in this section.

The articles "a" and "an" are used herein to refer to one or to more than one (*i.e.*
25 to at least one) of the grammatical object of the article. By way of example, "an element" means one element or more than one element.

A "marker" is a naturally-occurring polymer corresponding to at least one of the novel nucleic acids listed in Tables 1-2. For example, markers include, without limitation, sense and anti-sense strands of genomic DNA (*i.e.* including any introns
30 occurring therein), RNA generated by transcription of genomic DNA (*i.e.* prior to splicing), RNA generated by splicing of RNA transcribed from genomic DNA, and proteins generated by translation of spliced RNA (*i.e.* including proteins both before and

- 12 -

after cleavage of normally cleaved regions such as transmembrane signal sequences). As used herein, "marker" may also include a cDNA made by reverse transcription of an RNA generated by transcription of genomic DNA (including spliced RNA).

The term "probe" refers to any molecule which is capable of selectively binding to a specifically intended target molecule, for example a marker of the invention. Probes can be either synthesized by one skilled in the art, or derived from appropriate biological preparations. For purposes of detection of the target molecule, probes may be specifically designed to be labeled, as described herein. Examples of molecules that can be utilized as probes include, but are not limited to, RNA, DNA, proteins, antibodies, and organic monomers.

An "ovary-associated" body fluid is a fluid which, when in the body of a patient, contacts or passes through ovarian cells or into which cells or proteins shed from ovarian cells *e.g.* ovarian epithelium, are capable of passing. Exemplary ovary-associated body fluids include blood fluids, lymph, ascites, gynecological fluids, cystic fluid, urine, and fluids collected by peritoneal rinsing.

The "normal" level of expression of a marker is the level of expression of the marker in ovarian cells of a patient, *e.g.* a human, not afflicted with ovarian cancer.

"Over-expression" and "under-expression" of a marker refer to expression of the marker of a patient at a greater or lesser level, respectively, than normal level of expression of the marker (*e.g.* at least two-fold greater or lesser level).

As used herein, the term "promoter/regulatory sequence" means a nucleic acid sequence which is required for expression of a gene product operably linked to the promoter/regulatory sequence. In some instances, this sequence may be the core promoter sequence and in other instances, this sequence may also include an enhancer sequence and other regulatory elements which are required for expression of the gene product. The promoter/regulatory sequence may, for example, be one which expresses the gene product in a tissue-specific manner.

A "constitutive" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell under most or all physiological conditions of the cell.

- 13 -

An "inducible" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell substantially only when an inducer which corresponds to the promoter is present in the cell.

- 5 A "tissue-specific" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell substantially only if the cell is a cell of the tissue type corresponding to the promoter.

- 10 A "transcribed polynucleotide" is a polynucleotide (*e.g.* an RNA, a cDNA, or an analog of one of an RNA or cDNA) which is complementary to or homologous with all or a portion of a mature RNA made by transcription of a genomic DNA corresponding to a marker of the invention and normal post-transcriptional processing (*e.g.* splicing), if any, of the transcript.

- "Complementary" refers to the broad concept of sequence complementarity
- 15 between regions of two nucleic acid strands or between two regions of the same nucleic acid strand. It is known that an adenine residue of a first nucleic acid region is capable of forming specific hydrogen bonds ("base pairing") with a residue of a second nucleic acid region which is antiparallel to the first region if the residue is thymine or uracil. Similarly, it is known that a cytosine residue of a first nucleic acid strand is capable of
- 20 base pairing with a residue of a second nucleic acid strand which is antiparallel to the first strand if the residue is guanine. A first region of a nucleic acid is complementary to a second region of the same or a different nucleic acid if, when the two regions are arranged in an antiparallel fashion, at least one nucleotide residue of the first region is capable of base pairing with a residue of the second region. Preferably, the first region
- 25 comprises a first portion and the second region comprises a second portion, whereby, when the first and second portions are arranged in an antiparallel fashion, at least about 50%, and preferably at least about 75%, at least about 90%, or at least about 95% of the nucleotide residues of the first portion are capable of base pairing with nucleotide residues in the second portion. More preferably, all nucleotide residues of the first
- 30 portion are capable of base pairing with nucleotide residues in the second portion.

- 14 -

"Homologous" as used herein, refers to nucleotide sequence similarity between two regions of the same nucleic acid strand or between regions of two different nucleic acid strands. When a nucleotide residue position in both regions is occupied by the same nucleotide residue, then the regions are homologous at that position. A first region
5 is homologous to a second region if at least one nucleotide residue position of each region is occupied by the same residue. Homology between two regions is expressed in terms of the proportion of nucleotide residue positions of the two regions that are occupied by the same nucleotide residue. By way of example, a region having the nucleotide sequence 5'-ATTGCC-3' and a region having the nucleotide sequence 5'-
10 TATGGC-3' share 50% homology. Preferably, the first region comprises a first portion and the second region comprises a second portion, whereby, at least about 50%, and preferably at least about 75%, at least about 90%, or at least about 95% of the nucleotide residue positions of each of the portions are occupied by the same nucleotide residue. More preferably, all nucleotide residue positions of each of the portions are occupied by
15 the same nucleotide residue.

A marker is "fixed" to a substrate if it is covalently or non-covalently associated with the substrate such the substrate can be rinsed with a fluid (*e.g.* standard saline citrate, pH 7.4) without a substantial fraction of the marker dissociating from the substrate.

20 As used herein, a "naturally-occurring" nucleic acid molecule refers to an RNA or DNA molecule having a nucleotide sequence that occurs in nature (*e.g.* encodes a natural protein).

Expression of a marker in a patient is "significantly" higher or lower than the normal level of expression of a marker if the level of expression of the marker is greater
25 or less, respectively, than the normal level by an amount greater than the standard error of the assay employed to assess expression, and preferably at least twice, and more preferably three, four, five or ten times that amount. Alternately, expression of the marker in the patient can be considered "significantly" higher or lower than the normal level of expression if the level of expression is at least about two, and preferably at least
30 about three, four, or five times, higher or lower, respectively, than the normal level of expression of the marker.

- 15 -

Ovarian cancer is "inhibited" if at least one symptom of the cancer is alleviated, terminated, slowed, or prevented. As used herein, ovarian cancer is also "inhibited" if recurrence or metastasis of the cancer is reduced, slowed, delayed, or prevented.

A kit is any manufacture (*e.g.* a package or container) comprising at least one
5 reagent, *e.g.* a probe, for specifically detecting a marker of the invention, the manufacture being promoted, distributed, or sold as a unit for performing the methods of the present invention.

Description

10 The present invention is based, in part, on identification of novel markers which are over-expressed in ovarian cancer cells as compared to their expression in normal (*i.e.* non- cancerous) ovarian cells. The markers of the invention correspond to DNA, RNA, and polypeptide molecules which can be detected in one or both of normal and
15 ovarian cells. The enhanced expression of one or more of these markers in ovarian cells is herein correlated with the cancerous state of the tissue. The invention thus includes compositions, kits, and methods for assessing the cancerous state of ovarian cells (*e.g.* cells obtained from a human, cultured human cells, archived or preserved human cells and *in vivo* cells).

The compositions, kits, and methods of the invention have the following uses,
20 among others:

- 1) assessing whether a patient is afflicted with ovarian cancer;
- 2) assessing the stage of ovarian cancer in a human patient;
- 3) assessing the grade of ovarian cancer in a patient;
- 4) assessing the benign or malignant nature of ovarian cancer in a patient;
- 25 5) assessing the histological type of neoplasm (*e.g.* serous, mucinous, endometroid, or clear cell neoplasm) associated with ovarian cancer in a patient;
- 6) making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with ovarian cancer;
- 30 7) assessing the presence of ovarian cancer cells;
- 8) assessing the efficacy of one or more test compounds for inhibiting ovarian cancer in a patient;

- 16 -

- 9) assessing the efficacy of a therapy for inhibiting ovarian cancer in a patient;
- 10) monitoring the progression of ovarian cancer in a patient;
- 11) selecting a composition or therapy for inhibiting ovarian cancer in a patient;
- 12) treating a patient afflicted with ovarian cancer;
- 13) inhibiting ovarian cancer in a patient;
- 14) assessing the ovarian carcinogenic potential of a test compound; and
- 15) inhibiting an ovarian cancer in a patient at risk for developing ovarian cancer.

The invention thus includes a method of assessing whether a patient is afflicted with ovarian cancer. This method comprises comparing the level of expression of a marker in a patient sample and the normal level of expression of the marker in a control, *e.g.*, a non-ovarian cancer sample. A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer. The marker is selected from the group consisting of the markers listed in Tables 1-2.

The polynucleotides set forth in Tables 1-2 represent previously unidentified nucleotide sequences. These nucleotide sequences were identified through subtracted library experiments described herein. Also provided by this invention are polynucleotides that correspond to the polynucleotides of Tables 1-2. In one embodiment, these polynucleotides are obtained by identification of a larger fragment or full-length coding sequence of these polynucleotides. Gene delivery vehicles, host cells, compositions and databases (all described herein) containing these polynucleotides are also provided by this invention.

Any marker or combination of markers listed in Tables 1-2, as well as any known markers in combination with the markers set forth in Tables 1-2, may be used in the compositions, kits, and methods of the present invention. In general, it is preferable to use markers for which the difference between the level of expression of the marker in ovarian cancer cells and the level of expression of the same marker in normal ovarian

- 17 -

cells is as great as possible. Although this difference can be as small as the limit of detection of the method for assessing expression of the marker, it is preferred that the difference be at least greater than the standard error of the assessment method, and preferably a difference of at least 2-, 3-, 4-, 5-, 6-, 7-, 8-, 9-, 10-, 15-, 20-, 25-, 100-,
5 500-, 1000-fold or greater.

It is recognized that certain markers correspond to proteins which are secreted from ovarian cells (*i.e.* one or both of normal and cancerous cells) to the extracellular space surrounding the cells. These markers are preferably used in certain embodiments of the compositions, kits, and methods of the invention, owing to the fact that the protein
10 corresponding to each of these markers can be detected in an ovary-associated body fluid sample, which may be more easily collected from a human patient than a tissue biopsy sample. In addition, preferred *in vivo* techniques for detection of a protein corresponding to a marker of the invention include introducing into a subject a labeled antibody directed against the protein. For example, the antibody can be labeled with a
15 radioactive marker whose presence and location in a subject can be detected by standard imaging techniques.

It is a simple matter for the skilled artisan to determine whether any particular marker corresponds to a secreted protein. In order to make this determination, the protein corresponding to a marker is expressed in a test cell (*e.g.* a cell of an ovarian cell
20 line), extracellular fluid is collected, and the presence or absence of the protein in the extracellular fluid is assessed (*e.g.* using a labeled antibody which binds specifically with the protein).

The following is an example of a method which can be used to detect secretion of a protein corresponding to a marker of the invention. About 8×10^5 293T cells are
25 incubated at 37°C in wells containing growth medium (Dulbecco's modified Eagle's medium {DMEM} supplemented with 10% fetal bovine serum) under a 5% (v/v) CO₂, 95% air atmosphere to about 60-70% confluence. The cells are then transfected using a standard transfection mixture comprising 2 micrograms of DNA comprising an expression vector encoding the protein and 10 microliters of LipofectAMINE™
30 (GIBCO/BRL Catalog no. 18342-012) per well. The transfection mixture is maintained for about 5 hours, and then replaced with fresh growth medium and maintained in an air atmosphere. Each well is gently rinsed twice with DMEM which does not contain

- 18 -

methionine or cysteine (DMEM-MC; ICN Catalog no. 16-424- 54). About 1 milliliter of DMEM-MC and about 50 microcuries of Trans-³⁵S™ reagent (ICN Catalog no. 51006) are added to each well. The wells are maintained under the 5% CO₂ atmosphere described above and incubated at 37°C for a selected period. Following incubation, 150
5 microliters of conditioned medium is removed and centrifuged to remove floating cells and debris. The presence of the protein in the supernatant is an indication that the protein is secreted.

Examples of ovary-associated body fluids include blood fluids (*e.g.* whole blood, blood serum, blood having platelets removed therefrom, etc.), lymph, ascitic fluids,
10 gynecological fluids (*e.g.* ovarian, fallopian, and uterine secretions, menses, vaginal douching fluids, fluids used to rinse cervical cell samples, etc.), cystic fluid, urine, and fluids collected by peritoneal rinsing (*e.g.* fluids applied and collected during laparoscopy or fluids instilled into and withdrawn from the peritoneal cavity of a human patient). In these embodiments, the level of expression of the marker can be assessed by
15 assessing the amount (*e.g.* absolute amount or concentration) of the marker in an ovary-associated body fluid obtained from a patient. The fluid can, of course, be subjected to a variety of well-known post-collection preparative and storage techniques (*e.g.* storage, freezing, ultrafiltration, concentration, evaporation, centrifugation, etc.) prior to assessing the amount of the marker in the fluid.

20 Many ovary-associated body fluids (*i.e.* usually excluding urine) can have ovarian cells, *e.g.* ovarian epithelium, therein, particularly when the ovarian cells are cancerous, and, more particularly, when the ovarian cancer is metastasizing. Cell-containing fluids which can contain ovarian cancer cells include, but are not limited to, peritoneal ascites, fluids collected by peritoneal rinsing, fluids collected by uterine
25 rinsing, uterine fluids such as uterine exudate and menses, pleural fluid, and ovarian exudates. Thus, the compositions, kits, and methods of the invention can be used to detect expression of markers corresponding to proteins having at least one portion which is displayed on the surface of cells which express it. Examples of such proteins are indicated in the Tables herein. Although not every protein having at least one cell-
30 surface portion is indicated in the Tables, it is a simple matter for the skilled artisan to determine whether the protein corresponding to any particular marker comprises a cell-surface protein. For example, immunological methods may be used to detect such

- 19 -

proteins on whole cells, or well known computer-based sequence analysis methods (*e.g.* the SIGNALP program; Nielsen *et al.*, 1997, *Protein Engineering* 10:1-6) may be used to predict the presence of at least one extracellular domain (*i.e.* including both secreted proteins and proteins having at least one cell-surface domain). Expression of a marker
5 corresponding to a protein having at least one portion which is displayed on the surface of a cell which expresses it may be detected without necessarily lysing the cell (*e.g.* using a labeled antibody which binds specifically with a cell-surface domain of the protein).

Expression of a marker of the invention may be assessed by any of a wide
10 variety of well known methods for detecting expression of a transcribed molecule or protein. Non-limiting examples of such methods include immunological methods for detection of secreted, cell-surface, cytoplasmic, or nuclear proteins, protein purification methods, protein function or activity assays, nucleic acid hybridization methods, nucleic acid reverse transcription methods, and nucleic acid amplification methods.

15 In a preferred embodiment, expression of a marker is assessed using an antibody (*e.g.* a radio-labeled, chromophore-labeled, fluorophore-labeled, or enzyme-labeled antibody), an antibody derivative (*e.g.* an antibody conjugated with a substrate or with the protein or ligand of a protein-ligand pair {*e.g.* biotin-streptavidin}), or an antibody fragment (*e.g.* a single-chain antibody, an isolated antibody hypervariable domain, etc.)
20 which binds specifically with a protein corresponding to the marker, such as the protein encoded by the open reading frame corresponding to the marker or such a protein which has undergone all or a portion of its normal post-translational modification.

In another preferred embodiment, expression of a marker is assessed by preparing mRNA/cDNA (*i.e.* a transcribed polynucleotide) from cells in a patient
25 sample, and by hybridizing the mRNA/cDNA with a reference polynucleotide which is a complement of a polynucleotide comprising the marker, and fragments thereof. cDNA can, optionally, be amplified using any of a variety of polymerase chain reaction methods prior to hybridization with the reference polynucleotide; preferably, it is not amplified. Expression of one or more markers can likewise be detected using
30 quantitative PCR to assess the level of expression of the marker(s). Alternatively, any of the many known methods of detecting mutations or variants (*e.g.* single nucleotide

- 20 -

polymorphisms, deletions, etc.) of a marker of the invention may be used to detect occurrence of a marker in a patient.

In a related embodiment, a mixture of transcribed polynucleotides obtained from the sample is contacted with a substrate having fixed thereto a polynucleotide
5 complementary to or homologous with at least a portion (*e.g.* at least 7, 10, 15, 20, 25, 30, 40, 50, 100, 500, or more nucleotide residues) of a marker of the invention. If polynucleotides complementary to or homologous with are differentially detectable on the substrate (*e.g.* detectable using different chromophores or fluorophores, or fixed to different selected positions), then the levels of expression of a plurality of markers can
10 be assessed simultaneously using a single substrate (*e.g.* a "gene chip" microarray of polynucleotides fixed at selected positions). When a method of assessing marker expression is used which involves hybridization of one nucleic acid with another, it is preferred that the hybridization be performed under stringent hybridization conditions.

Because the compositions, kits, and methods of the invention rely on detection of
15 a difference in expression levels of one or more markers of the invention, it is preferable that the level of expression of the marker is significantly greater than the minimum detection limit of the method used to assess expression in at least one of normal ovarian cells and cancerous ovarian cells.

It is understood that by routine screening of additional patient samples using one
20 or more of the markers of the invention, it will be realized that certain of the markers are over- or under-expressed in cancers of various types, including specific ovarian cancers, as well as other cancers such as breast cancer, cervical cancer, etc. For example, it will be confirmed that some of the markers of the invention are over- or under-expressed in most (*i.e.* 50% or more) or substantially all (*i.e.* 80% or more) of ovarian cancer.
25 Furthermore, it will be confirmed that certain of the markers of the invention are associated with ovarian cancer of various stages (*i.e.* stage I, II, III, and IV ovarian cancers, as well as subclassifications IA, IB, IC, IIA, IIB, IIC, IIIA, IIIB, and IIIC, using the FIGO Stage Grouping system for primary carcinoma of the ovary; 1987, *Am. J. Obstet. Gynecol.* 156:236), of various histologic subtypes (*e.g.* serous, mucinous,
30 endometrioid, and clear cell subtypes, as well as subclassifications and alternate classifications adenocarcinoma, papillary adenocarcinoma, papillary cystadenocarcinoma, surface papillary carcinoma, malignant adenofibroma,

- 21 -

cystadenofibroma, adenocarcinoma, cystadenocarcinoma, adenoacanthoma, endometrioid stromal sarcoma, mesodermal (Müllerian) mixed tumor, mesonephroid tumor, malignant carcinoma, Brenner tumor, mixed epithelial tumor, and undifferentiated carcinoma, using the WHO/FIGO system for classification of malignant ovarian tumors; Scully, *Atlas of Tumor Pathology*, 3d series, Washington DC), and various grades (*i.e.* grade I {well differentiated} , grade II {moderately well differentiated}, and grade III {poorly differentiated from surrounding normal tissue}). In addition, as a greater number of patient samples are assessed for expression of the markers of the invention and the outcomes of the individual patients from whom the samples were obtained are correlated, it will also be confirmed that altered expression of certain of the markers of the invention are strongly correlated with malignant cancers and that altered expression of other markers of the invention are strongly correlated with benign tumors. The compositions, kits, and methods of the invention are thus useful for characterizing one or more of the stage, grade, histological type, and benign/malignant nature of ovarian cancer in patients. In addition, these compositions, kits, and methods can be used to detect and differentiate epithelial, stromal, and germ cell ovarian cancers.

When the compositions, kits, and methods of the invention are used for characterizing one or more of the stage, grade, histological type, and benign/malignant nature of ovarian cancer in a patient, it is preferred that the marker or panel of markers of the invention is selected such that a positive result is obtained in at least about 20%, and preferably at least about 40%, 60%, or 80%, and more preferably in substantially all patients afflicted with an ovarian cancer of the corresponding stage, grade, histological type, or benign/malignant nature. Preferably, the marker or panel of markers of the invention is selected such that a PPV of greater than about 10% is obtained for the general population (more preferably coupled with an assay specificity greater than 99.5%).

When a plurality of markers of the invention are used in the compositions, kits, and methods of the invention, the level of expression of each marker in a patient sample can be compared with the normal level of expression of each of the plurality of markers in non-cancerous samples of the same type, either in a single reaction mixture (*i.e.* using reagents, such as different fluorescent probes, for each marker) or in individual reaction mixtures corresponding to one or more of the markers. In one embodiment, a

- 22 -

significantly enhanced level of expression of more than one of the plurality of markers in the sample, relative to the corresponding normal levels, is an indication that the patient is afflicted with ovarian cancer. In another embodiment, a significantly lower level of expression in the sample of each of the plurality of markers, relative to the corresponding normal levels, is an indication that the patient is afflicted with ovarian cancer. In yet another embodiment, a significantly enhanced level of expression of one or more marks and a significantly lower level of expression of one or more markers in a sample relative to the corresponding normal levels, is an indication that the patient is afflicted with ovarian cancer. When a plurality of markers is used, it is preferred that 2, 3, 4, 5, 8, 10, 12, 15, 20, 30, or 50 or more individual markers be used, wherein fewer markers are preferred.

In order to maximize the sensitivity of the compositions, kits, and methods of the invention (*i.e.* by interference attributable to cells of non-ovarian origin in a patient sample), it is preferable that the marker of the invention used therein be a marker which has a restricted tissue distribution, *e.g.*, normally not expressed in a non-epithelial tissue, and more preferably a marker which is normally not expressed in a non-ovarian tissue.

Only a small number of markers are known to be associated with ovarian cancers (*e.g.* *AKT2*, *Ki-RAS*, *ERBB2*, *c-MYC*, *RB1*, and *TP53*; Lynch, *supra*). These markers are not, of course, included among the markers of the invention, although they may be used together with one or more markers of the invention in a panel of markers, for example. It is well known that certain types of genes, such as oncogenes, tumor suppressor genes, growth factor-like genes, protease-like genes, and protein kinase-like genes are often involved with development of cancers of various types. Thus, among the markers of the invention, use of those which correspond to proteins which resemble known proteins encoded by known oncogenes and tumor suppressor genes, and those which correspond to proteins which resemble growth factors, proteases, and protein kinases are preferred.

Known oncogenes and tumor suppressor genes include, for example, *abl*, *abr*, *akt2*, *apc*, *bcl2 α* , *bcl2 β* , *bcl3*, *bcr*, *brca1*, *brca2*, *cbl*, *ccnd1*, *cdc42*, *cdk4*, *crk-II*, *csf1r/fms*, *dbl*, *dcc*, *dpc4/smad4*, *e-cad*, *e2f1/rbap*, *egfr/erb-1*, *elk1*, *elk3*, *eph*, *erg*, *ets1*, *ets2*, *fer*, *fgr/src2*, *fli1/ergb2*, *fos*, *fps/fes*, *fra1*, *fra2*, *fyn*, *hck*, *hek*, *her2/erb-2/neu*, *her3/erb-3*, *her4/erb-4*, *hras1*, *hst2*, *hstf1*, *igfbp2*, *ink4a*, *ink4b*, *int2/fgf3*, *jun*, *junb*, *jund*, *kip2*, *kit*, *kras2a*, *kras2b*, *lck*, *lyn*, *mas*, *max*, *mcc*, *mdm2*, *met*, *mlh1*, *mmp10*, *mos*,

msh2, msh3, msh6, myb, myba, mybb, myc, mycl1, mycn, nfl, nf2, nme2, nras, p53, pdgfb, phb, pim1, pms1, pms2, ptc, pten, raf1, rap1a, rbl, rel, ret, ros1, ski, src1, tall, tgfb2, tgfb3, tgfr3, thral, thrb, tiam1, timp3, tjp1, tp53, trk, vav, vhl, vil2, waf1, wnt1, wnt2, wt1, and yes1 (Hesketh, 1997, In: *The Oncogene and Tumour Suppressor Gene Facts Book*, 2nd Ed., Academic Press; Fishel *et al.*, 1994, *Science* 266:1403-1405).

Known growth factors include platelet-derived growth factor alpha, platelet-derived growth factor beta (simian sarcoma viral {v-sis} oncogene homolog), thrombopoietin (myeloproliferative leukemia virus oncogene ligand, megakaryocyte growth and development factor), erythropoietin, B cell growth factor, macrophage stimulating factor 1 (hepatocyte growth factor-like protein), hepatocyte growth factor (hepatopoietin A), insulin-like growth factor 1 (somatomedia C), hepatoma-derived growth factor, amphiregulin (schwannoma-derived growth factor), bone morphogenetic proteins 1, 2, 3, 3 beta, and 4, bone morphogenetic protein 7 (osteogenic protein 1), bone morphogenetic protein 8 (osteogenic protein 2), connective tissue growth factor, connective tissue activation peptide 3, epidermal growth factor (EGF), teratocarcinoma-derived growth factor 1, endothelin, endothelin 2, endothelin 3, stromal cell-derived factor 1, vascular endothelial growth factor (VEGF), VEGF-B, VEGF-C, placental growth factor (vascular endothelial growth factor-related protein), transforming growth factor alpha, transforming growth factor beta 1 and its precursors, transforming growth factor beta 2 and its precursors, fibroblast growth factor 1 (acidic), fibroblast growth factor 2 (basic), fibroblast growth factor 5 and its precursors, fibroblast growth factor 6 and its precursors, fibroblast growth factor 7 (keratinocyte growth factor), fibroblast growth factor 8 (androgen-induced), fibroblast growth factor 9 (glia-activating factor), pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1), brain-derived neurotrophic factor, and recombinant glial growth factor 2.

Known proteases include interleukin-1 beta convertase and its precursors, Mch6 and its precursors, Mch2 isoform alpha, Mch4, Cpp32 isoform alpha, Lice2 gamma cysteine protease, Ich-1S, Ich-1L, Ich-2 and its precursors, TY protease, matrix metalloproteinase 1 (interstitial collagenase), matrix metalloproteinase 2 (gelatinase A, 72kD gelatinase, 72kD type IV collagenase), matrix metalloproteinase 7 (matrilysin), matrix metalloproteinase 8 (neutrophil collagenase), matrix metalloproteinase 12 (macrophage elastase), matrix metalloproteinase 13 (collagenase 3), metallopeptidase 1,

- cysteine-rich metalloprotease (disintegrin) and its precursors, subtilisin-like protease Pc8 and its precursors, chymotrypsin, snake venom-like protease, cathepsin I, cathepsin D (lysosomal aspartyl protease), stromelysin, aminopeptidase N, plasminogen, tissue plasminogen activator, plasminogen activator inhibitor type II, and urokinase-type
- 5 plasminogen activator.

- Known protein kinases include DAP kinase, serine/threonine protein kinases NIK, PK428, Krs-2, SAK, and EMK, interferon-inducible double stranded RNA dependent protein kinase, FAST kinase, AIM1, IPL1-like midbody-associated protein kinase-1, NIMA-like protein kinase 1 (NLK1), the cyclin-dependent kinases (cdk1-10),
- 10 checkpoint kinase Chk1, Nek3 protein kinase, BMK1 beta kinase, Clk1, Clk2, Clk3, extracellular signal-regulated kinases 1, 3, and 6, cdc28 protein kinase 1, cdc28 protein kinase 2, pLK, Myt1, c-Jun N-terminal kinase 2, Cam kinase 1, the MAP kinases, insulin-stimulated protein kinase 1, beta-adrenergic receptor kinase 2, ribosomal protein S6 kinase, kinase suppressor of ras-1 (KSR1), putative serine/threonine protein kinase
- 15 Prk, Pkb kinase, cAMP-dependent protein kinase, cGMP-dependent protein kinase, type II cGMP-dependent protein kinase, protein kinases Dyrk2, Dyrk3, and Dyrk4, Rho-associated coiled-coil containing protein kinase p160ROCK, protein tyrosine kinase t-Ror1, Ste20-related kinases, cell adhesion kinase beta, protein kinase 3, stress-activated protein kinase 4, protein kinase Zpk, serine kinase hPAK65, dual specificity mitogen-
- 20 activated protein kinases 1 and 2, casein kinase I gamma 2, p21-activated protein kinase Pak1, lipid-activated protein kinase PRK2, focal adhesion kinase, dual-specificity tyrosine-phosphorylation regulated kinase, myosin light chain kinase, serine kinases SRPK2, TESK1, and VRK2, B lymphocyte serine/threonine protein kinase, stress-activated protein kinases JNK1 and JNK2, phosphorylase kinase, protein tyrosine kinase
- 25 Tec, Jak2 kinase, protein kinase Ndr, MEK kinase 3, SHB adaptor protein (a Src homology 2 protein), agammaglobulinaemia protein-tyrosine kinase (Atk), protein kinase ATR, guanylate kinase 1, thrombopoietin receptor and its precursors, DAG kinase epsilon, and kinases encoded by oncogenes or viral oncogenes such as v-fgr (Gardner-Rasheed), v-abl (Abelson murine leukemia viral oncogene homolog 1), v-arg
- 30 (Abelson murine leukemia viral oncogene homolog, Abelson-related gene), v-fes and v-fps (feline sarcoma viral oncogene and Fujinami avian sarcoma viral oncogene homologs), proto-oncogene *c-cot*, oncogene *pim-1*, and oncogene *mas1*.

- 25 -

It is recognized that the compositions, kits, and methods of the invention will be of particular utility to patients having an enhanced risk of developing ovarian cancer and their medical advisors. Patients recognized as having an enhanced risk of developing ovarian cancer include, for example, patients having a familial history of ovarian cancer, 5 patients identified as having a mutant oncogene (*i.e.* at least one allele), and patients of advancing age (*i.e.* women older than about 50 or 60 years).

The level of expression of a marker in normal (*i.e.* non-cancerous) human ovarian tissue can be assessed in a variety of ways. In one embodiment, this normal level of expression is assessed by assessing the level of expression of the marker in a 10 portion of ovarian cells which appears to be non-cancerous and by comparing this normal level of expression with the level of expression in a portion of the ovarian cells which is suspected of being cancerous. For example, when laparoscopy or other medical procedure, reveals the presence of a lump on one portion of a patient's ovary, but not on another portion of the same ovary or on the other ovary, the normal level of 15 expression of a marker may be assessed using one or both of the non-affected ovary and a non-affected portion of the affected ovary, and this normal level of expression may be compared with the level of expression of the same marker in an affected portion (*i.e.* the lump) of the affected ovary. Alternately, and particularly as further information becomes available as a result of routine performance of the methods described herein, 20 population-average values for normal expression of the markers of the invention may be used. In other embodiments, the 'normal' level of expression of a marker may be determined by assessing expression of the marker in a patient sample obtained from a non-cancer-afflicted patient, from a patient sample obtained from a patient before the suspected onset of ovarian cancer in the patient, from archived patient samples, and the 25 like.

The invention includes compositions, kits, and methods for assessing the presence of ovarian cancer cells in a sample (*e.g.* an archived tissue sample or a sample obtained from a patient). These compositions, kits, and methods are substantially the same as those described above, except that, where necessary, the compositions, kits, and 30 methods are adapted for use with samples other than patient samples. For example, when the sample to be used is a paraffinized, archived human tissue sample, it can be necessary to adjust the ratio of compounds in the compositions of the invention, in the

- 26 -

kits of the invention, or the methods used to assess levels of marker expression in the sample. Such methods are well known in the art and within the skill of the ordinary artisan.

The invention includes a kit for assessing the presence of ovarian cancer cells
5 (e.g. in a sample such as a patient sample). The kit comprises a plurality of reagents, each of which is capable of binding specifically with a nucleic acid or polypeptide corresponding to a marker of the invention. Suitable reagents for binding with a polypeptide corresponding to a marker of the invention include antibodies, antibody derivatives, antibody fragments, and the like. Suitable reagents for binding with a
10 nucleic acid (e.g. a genomic DNA, an mRNA, a spliced mRNA, a cDNA, or the like) include complementary nucleic acids. For example, the nucleic acid reagents may include oligonucleotides (labeled or non-labeled) fixed to a substrate, labeled oligonucleotides not bound with a substrate, pairs of PCR primers, molecular beacon probes, and the like.

15 The kit of the invention may optionally comprise additional components useful for performing the methods of the invention. By way of example, the kit may comprise fluids (e.g. SSC buffer) suitable for annealing complementary nucleic acids or for binding an antibody with a protein with which it specifically binds, one or more sample compartments, an instructional material which describes performance of a method of the
20 invention, a sample of normal ovarian cells, a sample of ovarian cancer cells, and the like.

The invention also includes a method of making an isolated hybridoma which produces an antibody useful for assessing whether patient is afflicted with an ovarian cancer. In this method, a protein corresponding to a marker of the invention is isolated
25 (e.g. by purification from a cell in which it is expressed or by transcription and translation of a nucleic acid encoding the protein *in vivo* or *in vitro* using known methods). A vertebrate, preferably a mammal such as a mouse, rat, rabbit, or sheep, is immunized using the isolated protein. The vertebrate may optionally (and preferably) be immunized at least one additional time with the isolated protein, so that the vertebrate
30 exhibits a robust immune response to the protein. Splenocytes are isolated from the immunized vertebrate and fused with an immortalized cell line to form hybridomas, using any of a variety of methods well known in the art. Hybridomas formed in this

- 27 -

manner are then screened using standard methods to identify one or more hybridomas which produce an antibody which specifically binds with the protein. The invention also includes hybridomas made by this method and antibodies made using such hybridomas.

- 5 The invention also includes a method of assessing the efficacy of a test compound for inhibiting ovarian cancer cells. As described above, differences in the level of expression of the markers of the invention correlate with the cancerous state of ovarian cells. Although it is recognized that changes in the levels of expression of certain of the markers of the invention likely result from the cancerous state of ovarian
- 10 cells, it is likewise recognized that changes in the levels of expression of other of the markers of the invention induce, maintain, and promote the cancerous state of those cells. Thus, compounds which inhibit an ovarian cancer in a patient will cause the level of expression of one or more of the markers of the invention to change to a level nearer the normal level of expression for that marker (*i.e.* the level of expression for the marker
- 15 in non-cancerous ovarian cells).

- This method thus comprises comparing expression of a marker in a first ovarian cell sample and maintained in the presence of the test compound and expression of the marker in a second ovarian cell sample and maintained in the absence of the test compound. A significant alteration in the level of expression of a marker listed in
- 20 Tables 1-2 is an indication that the test compound inhibits ovarian cancer. The ovarian cell samples may, for example, be aliquots of a single sample of normal ovarian cells obtained from a patient, pooled samples of normal ovarian cells obtained from a patient, cells of a normal ovarian cell line, aliquots of a single sample of ovarian cancer cells obtained from a patient, pooled samples of ovarian cancer cells obtained from a patient,
- 25 cells of an ovarian cancer cell line, or the like. In one embodiment, the samples are ovarian cancer cells obtained from a patient and a plurality of compounds known to be effective for inhibiting various ovarian cancers are tested in order to identify the compound which is likely to best inhibit the ovarian cancer in the patient.

- This method may likewise be used to assess the efficacy of a therapy for
- 30 inhibiting ovarian cancer in a patient. In this method, the level of expression of one or more markers of the invention in a pair of samples (one subjected to the therapy, the other not subjected to the therapy) is assessed. As with the method of assessing the

- 28 -

efficacy of test compounds, if the therapy induces a significant alteration in the level of expression of a marker listed in Tables 1-2 then the therapy is efficacious for inhibiting ovarian cancer. As above, if samples from a selected patient are used in this method, then alternative therapies can be assessed *in vitro* in order to select a therapy most likely
5 to be efficacious for inhibiting ovarian cancer in the patient.

As described herein, ovarian cancer in patients is associated with an alteration in the level of expression of one or more markers listed in Tables 1-2. While, as discussed above, some of these changes in expression level result from occurrence of the ovarian cancer, others of these changes induce, maintain, and promote the cancerous
10 state of ovarian cancer cells. Thus, ovarian cancer characterized by an increase in the level of expression of one or more markers listed in either or both of Tables 1-2 can be inhibited by inhibiting expression of those markers.

Expression of a marker listed in Tables 1-2 can be inhibited in a number of ways generally known in the art. For example, an antisense oligonucleotide can be provided
15 to the ovarian cancer cells in order to inhibit transcription, translation, or both, of the marker(s). Alternately, a polynucleotide encoding an antibody, an antibody derivative, or an antibody fragment, and operably linked with an appropriate promoter/regulator region, can be provided to the cell in order to generate intracellular antibodies which will inhibit the function or activity of the protein corresponding to the marker(s). Using
20 the methods described herein, a variety of molecules, particularly including molecules sufficiently small that they are able to cross the cell membrane, can be screened in order to identify molecules which inhibit expression of the marker(s). The compound so identified can be provided to the patient in order to inhibit expression of the marker(s) in the ovarian cancer cells of the patient.

25 Expression of a marker listed in Tables 1-2 can be enhanced in a number of ways generally known in the art. For example, a polynucleotide encoding the marker and operably linked with an appropriate promoter/regulator region can be provided to ovarian cancer cells of the patient in order to induce enhanced expression of the protein (and mRNA) corresponding to the marker therein. Alternatively, if the protein is
30 capable of crossing the cell membrane, inserting itself in the cell membrane, or is normally a secreted protein, then expression of the protein can be enhanced by providing

- 29 -

the protein (*e.g.* directly or by way of the bloodstream or another ovary-associated fluid) to ovarian cancer cells in the patient.

As described above, the cancerous state of human ovarian cells is correlated with changes in the levels of expression of the markers of the invention. The invention
5 includes a method for assessing the human ovarian cell carcinogenic potential of a test compound. This method comprises maintaining separate aliquots of human ovarian cells in the presence and absence of the test compound. Expression of a marker of the invention in each of the aliquots is compared. A significant alteration in the level of expression of a marker listed in Tables 1-2 in the aliquot maintained in the presence of
10 the test compound (relative to the aliquot maintained in the absence of the test compound) is an indication that the test compound possesses human ovarian cell carcinogenic potential. The relative carcinogenic potentials of various test compounds can be assessed by comparing the degree of enhancement or inhibition of the level of expression of the relevant markers, by comparing the number of markers for which the
15 level of expression is enhanced or inhibited, or by comparing both.

Various aspects of the invention are described in further detail in the following subsections.

I. Isolated Nucleic Acid Molecules

20 One aspect of the invention pertains to novel isolated nucleic acid molecules that correspond to a marker of the invention, including nucleic acids which encode a polypeptide corresponding to a marker of the invention or a portion of such a polypeptide. Isolated nucleic acids of the invention also include nucleic acid molecules sufficient for use as hybridization probes to identify nucleic acid molecules that
25 correspond to a marker of the invention, including nucleic acids which encode a polypeptide corresponding to a marker of the invention, and fragments of such nucleic acid molecules, *e.g.*, those suitable for use as PCR primers for the amplification or mutation of nucleic acid molecules. As used herein, the term "nucleic acid molecule" is intended to include DNA molecules (*e.g.*, cDNA or genomic DNA) and RNA molecules
30 (*e.g.*, mRNA) and analogs of the DNA or RNA generated using nucleotide analogs. The nucleic acid molecule can be single-stranded or double-stranded, but preferably is double-stranded DNA.

- 30 -

An "isolated" nucleic acid molecule is one which is separated from other nucleic acid molecules which are present in the natural source of the nucleic acid molecule. Preferably, an "isolated" nucleic acid molecule is free of sequences (preferably protein-encoding sequences) which naturally flank the nucleic acid (*i.e.*, sequences located at the 5' and 3' ends of the nucleic acid) in the genomic DNA of the organism from which the nucleic acid is derived. For example, in various embodiments, the isolated nucleic acid molecule can contain less than about 5 kB, 4 kB, 3 kB, 2 kB, 1 kB, 0.5 kB or 0.1 kB of nucleotide sequences which naturally flank the nucleic acid molecule in genomic DNA of the cell from which the nucleic acid is derived. Moreover, an "isolated" nucleic acid molecule, such as a cDNA molecule, can be substantially free of other cellular material, or culture medium when produced by recombinant techniques, or substantially free of chemical precursors or other chemicals when chemically synthesized.

A nucleic acid molecule of the present invention can be isolated using standard molecular biology techniques and the sequence information in the database records described herein. Using all or a portion of such nucleic acid sequences, nucleic acid molecules of the invention can be isolated using standard hybridization and cloning techniques (*e.g.*, as described in Sambrook *et al.*, ed., *Molecular Cloning: A Laboratory Manual*, 2nd ed., Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1989).

A nucleic acid molecule of the invention can be amplified using cDNA, mRNA, or genomic DNA as a template and appropriate oligonucleotide primers according to standard PCR amplification techniques. The nucleic acid so amplified can be cloned into an appropriate vector and characterized by DNA sequence analysis. Furthermore, oligonucleotides corresponding to all or a portion of a nucleic acid molecule of the invention can be prepared by standard synthetic techniques, *e.g.*, using an automated DNA synthesizer.

In another preferred embodiment, an isolated nucleic acid molecule of the invention comprises a nucleic acid molecule which has a nucleotide sequence complementary to the nucleotide sequence of a nucleic acid corresponding to a marker of the invention or to the nucleotide sequence of a nucleic acid encoding a protein which corresponds to a marker of the invention. A nucleic acid molecule which is complementary to a given nucleotide sequence is one which is sufficiently

- 31 -

complementary to the given nucleotide sequence that it can hybridize to the given nucleotide sequence thereby forming a stable duplex.

Moreover, a nucleic acid molecule of the invention can comprise only a portion of a nucleic acid sequence, wherein the full length nucleic acid sequence comprises a
5 marker of the invention or which encodes a polypeptide corresponding to a marker of the invention. Such nucleic acids can be used, for example, as a probe or primer. The probe/primer typically is used as one or more substantially purified oligonucleotides. The oligonucleotide typically comprises a region of nucleotide sequence that hybridizes under stringent conditions to at least about 7, preferably about 15, more preferably about
10 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, or 400 or more consecutive nucleotides of a nucleic acid of the invention.

Probes based on the sequence of a nucleic acid molecule of the invention can be used to detect transcripts or genomic sequences corresponding to one or more markers of the invention. The probe comprises a label group attached thereto, *e.g.*, a
15 radioisotope, a fluorescent compound, an enzyme, or an enzyme co-factor. Such probes can be used as part of a diagnostic test kit for identifying cells or tissues which mis-express the protein, such as by measuring levels of a nucleic acid molecule encoding the protein in a sample of cells from a subject, *e.g.*, detecting mRNA levels or determining whether a gene encoding the protein has been mutated or deleted.

20 The invention further encompasses nucleic acid molecules that differ, due to degeneracy of the genetic code, from the nucleotide sequence of nucleic acids encoding a protein which corresponds to a marker of the invention, and thus encode the same protein.

It will be appreciated by those skilled in the art that DNA sequence
25 polymorphisms that lead to changes in the amino acid sequence can exist within a population (*e.g.*, the human population). Such genetic polymorphisms can exist among individuals within a population due to natural allelic variation. An allele is one of a group of genes which occur alternatively at a given genetic locus. In addition, it will be appreciated that DNA polymorphisms that affect RNA expression levels can also exist
30 that may affect the overall expression level of that gene (*e.g.*, by affecting regulation or degradation).

- 32 -

As used herein, the phrase "allelic variant" refers to a nucleotide sequence which occurs at a given locus or to a polypeptide encoded by the nucleotide sequence.

As used herein, the terms "gene" and "recombinant gene" refer to nucleic acid molecules comprising an open reading frame encoding a polypeptide corresponding to a marker of the invention. Such natural allelic variations can typically result in 1-5% variance in the nucleotide sequence of a given gene. Alternative alleles can be identified by sequencing the gene of interest in a number of different individuals. This can be readily carried out by using hybridization probes to identify the same genetic locus in a variety of individuals. Any and all such nucleotide variations and resulting amino acid polymorphisms or variations that are the result of natural allelic variation and that do not alter the functional activity are intended to be within the scope of the invention.

In another embodiment, an isolated nucleic acid molecule of the invention is at least 7, 15, 20, 25, 30, 40, 60, 80, 100, 150, 200, 250, 300, 350, 400, 450, 550, 650, 700, 800, 900, 1000, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3500, 4000, 4500, or more nucleotides in length and hybridizes under stringent conditions to a nucleic acid corresponding to a marker of the invention or to a nucleic acid encoding a protein corresponding to a marker of the invention. As used herein, the term "hybridizes under stringent conditions" is intended to describe conditions for hybridization and washing under which nucleotide sequences at least 75% (80%, 85%, preferably 90%) identical to each other typically remain hybridized to each other. Such stringent conditions are known to those skilled in the art and can be found in sections 6.3.1-6.3.6 of *Current Protocols in Molecular Biology*, John Wiley & Sons, N.Y. (1989). A preferred, non-limiting example of stringent hybridization conditions for annealing two single-stranded DNA each of which is at least about 100 bases in length and/or for annealing a single-stranded DNA and a single-stranded RNA each of which is at least about 100 bases in length, are hybridization in 6X sodium chloride/sodium citrate (SSC) at about 45°C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 50-65°C. Further preferred hybridization conditions are taught in Lockhart, *et al.*, *Nature Biotechnology*, Volume 14, 1996 August:1675-1680; Breslauer, *et al.*, *Proc. Natl. Acad. Sci. USA*, Volume 83, 1986 June: 3746-3750; Van Ness, *et al.*, *Nucleic Acids Research*, Volume 19, No. 19, 1991 September: 5143-5151; McGraw, *et al.*, *BioTechniques*,

Volume 8, No. 6 1990: 674-678; and Milner, *et al.*, Nature Biotechnology, Volume 15, 1997 June: 537-541, all expressly incorporated by reference.

In addition to naturally-occurring allelic variants of a nucleic acid molecule of the invention that can exist in the population, the skilled artisan will further appreciate
5 that sequence changes can be introduced by mutation thereby leading to changes in the amino acid sequence of the encoded protein, without altering the biological activity of the protein encoded thereby. For example, one can make nucleotide substitutions leading to amino acid substitutions at "non-essential" amino acid residues. A "non-essential" amino acid residue is a residue that can be altered from the wild-type
10 sequence without altering the biological activity, whereas an "essential" amino acid residue is required for biological activity. For example, amino acid residues that are not conserved or only semi-conserved among homologs of various species may be non-essential for activity and thus would be likely targets for alteration. Alternatively, amino acid residues that are conserved among the homologs of various species (*e.g.*, murine
15 and human) may be essential for activity and thus would not be likely targets for alteration.

Accordingly, another aspect of the invention pertains to nucleic acid molecules encoding a polypeptide of the invention that contain changes in amino acid residues that are not essential for activity. Such polypeptides differ in amino acid sequence from the
20 naturally-occurring proteins which correspond to the markers of the invention, yet retain biological activity. In one embodiment, such a protein has an amino acid sequence that is at least about 40% identical, 50%, 60%, 70%, 80%, 90%, 95%, or 98% identical to the amino acid sequence of one of the proteins which correspond to the markers of the invention.

25 An isolated nucleic acid molecule encoding a variant protein can be created by introducing one or more nucleotide substitutions, additions or deletions into the nucleotide sequence of nucleic acids of the invention, such that one or more amino acid residue substitutions, additions, or deletions are introduced into the encoded protein. Mutations can be introduced by standard techniques, such as site-directed mutagenesis
30 and PCR-mediated mutagenesis. Preferably, conservative amino acid substitutions are made at one or more predicted non-essential amino acid residues. A "conservative amino acid substitution" is one in which the amino acid residue is replaced with an

- 34 -

amino acid residue having a similar side chain. Families of amino acid residues having similar side chains have been defined in the art. These families include amino acids with basic side chains (*e.g.*, lysine, arginine, histidine), acidic side chains (*e.g.*, aspartic acid, glutamic acid), uncharged polar side chains (*e.g.*, glycine, asparagine, glutamine, serine, threonine, tyrosine, cysteine), non-polar side chains (*e.g.*, alanine, valine, leucine, isoleucine, proline, phenylalanine, methionine, tryptophan), beta-branched side chains (*e.g.*, threonine, valine, isoleucine) and aromatic side chains (*e.g.*, tyrosine, phenylalanine, tryptophan, histidine). Alternatively, mutations can be introduced randomly along all or part of the coding sequence, such as by saturation mutagenesis, and the resultant mutants can be screened for biological activity to identify mutants that retain activity. Following mutagenesis, the encoded protein can be expressed recombinantly and the activity of the protein can be determined.

The present invention encompasses antisense nucleic acid molecules, *i.e.*, molecules which are complementary to a sense nucleic acid of the invention, *e.g.*, complementary to the coding strand of a double-stranded cDNA molecule corresponding to a marker of the invention or complementary to an mRNA sequence corresponding to a marker of the invention. Accordingly, an antisense nucleic acid of the invention can hydrogen bond to (*i.e.* anneal with) a sense nucleic acid of the invention. The antisense nucleic acid can be complementary to an entire coding strand, or to only a portion thereof, *e.g.*, all or part of the protein coding region (or open reading frame). An antisense nucleic acid molecule can also be antisense to all or part of a non-coding region of the coding strand of a nucleotide sequence encoding a polypeptide of the invention. The non-coding regions ("5' and 3' untranslated regions") are the 5' and 3' sequences which flank the coding region and are not translated into amino acids.

An antisense oligonucleotide can be, for example, about 5, 10, 15, 20, 25, 30, 35, 40, 45, or 50 or more nucleotides in length. An antisense nucleic acid of the invention can be constructed using chemical synthesis and enzymatic ligation reactions using procedures known in the art. For example, an antisense nucleic acid (*e.g.*, an antisense oligonucleotide) can be chemically synthesized using naturally occurring nucleotides or variously modified nucleotides designed to increase the biological stability of the molecules or to increase the physical stability of the duplex formed between the antisense and sense nucleic acids, *e.g.*, phosphorothioate derivatives and acridine

- 35 -

substituted nucleotides can be used. Examples of modified nucleotides which can be used to generate the antisense nucleic acid include 5-fluorouracil, 5-bromouracil, 5-chlorouracil, 5-iodouracil, hypoxanthine, xanthine, 4-acetylcytosine, 5-(carboxyhydroxymethyl) uracil, 5-carboxymethylaminomethyl-2-thiouridine, 5-carboxymethylaminomethyluracil, dihydrouracil, beta-D-galactosylqueosine, inosine, N6-isopentenyladenine, 1-methylguanine, 1-methylinosine, 2,2-dimethylguanine, 2-methyladenine, 2-methylguanine, 3-methylcytosine, 5-methylcytosine, N6-adenine, 7-methylguanine, 5-methylaminomethyluracil, 5-methoxyaminomethyl-2-thiouracil, beta-D-mannosylqueosine, 5'-methoxycarboxymethyluracil, 5-methoxyuracil, 2-methylthio-N6-isopentenyladenine, uracil-5-oxyacetic acid (v), wybutoxosine, pseudouracil, queosine, 2-thiocytosine, 5-methyl-2-thiouracil, 2-thiouracil, 4-thiouracil, 5-methyluracil, uracil-5-oxyacetic acid methylester, uracil-5-oxyacetic acid (v), 5-methyl-2-thiouracil, 3-(3-amino-3-N-2-carboxypropyl) uracil, (acp3)w, and 2,6-diaminopurine. Alternatively, the antisense nucleic acid can be produced biologically using an expression vector into which a nucleic acid has been sub-cloned in an antisense orientation (*i.e.*, RNA transcribed from the inserted nucleic acid will be of an antisense orientation to a target nucleic acid of interest, described further in the following subsection).

The antisense nucleic acid molecules of the invention are typically administered to a subject or generated *in situ* such that they hybridize with or bind to cellular mRNA and/or genomic DNA encoding a polypeptide corresponding to a selected marker of the invention to thereby inhibit expression of the marker, *e.g.*, by inhibiting transcription and/or translation. The hybridization can be by conventional nucleotide complementarity to form a stable duplex, or, for example, in the case of an antisense nucleic acid molecule which binds to DNA duplexes, through specific interactions in the major groove of the double helix. Examples of a route of administration of antisense nucleic acid molecules of the invention includes direct injection at a tissue site or infusion of the antisense nucleic acid into an ovary-associated body fluid. Alternatively, antisense nucleic acid molecules can be modified to target selected cells and then administered systemically. For example, for systemic administration, antisense molecules can be modified such that they specifically bind to receptors or antigens expressed on a selected cell surface, *e.g.*, by linking the antisense nucleic acid molecules

- 36 -

to peptides or antibodies which bind to cell surface receptors or antigens. The antisense nucleic acid molecules can also be delivered to cells using the vectors described herein. To achieve sufficient intracellular concentrations of the antisense molecules, vector constructs in which the antisense nucleic acid molecule is placed under the control of a strong pol II or pol III promoter are preferred.

An antisense nucleic acid molecule of the invention can be an α -anomeric nucleic acid molecule. An α -anomeric nucleic acid molecule forms specific double-stranded hybrids with complementary RNA in which, contrary to the usual α -units, the strands run parallel to each other (Gaultier *et al.*, 1987, *Nucleic Acids Res.* 15:6625-6641). The antisense nucleic acid molecule can also comprise a 2'-O-methylribonucleotide (Inoue *et al.*, 1987, *Nucleic Acids Res.* 15:6131-6148) or a chimeric RNA-DNA analogue (Inoue *et al.*, 1987, *FEBS Lett.* 215:327-330).

The invention also encompasses ribozymes. Ribozymes are catalytic RNA molecules with ribonuclease activity which are capable of cleaving a single-stranded nucleic acid, such as an mRNA, to which they have a complementary region. Thus, ribozymes (*e.g.*, hammerhead ribozymes as described in Haselhoff and Gerlach, 1988, *Nature* 334:585-591) can be used to catalytically cleave mRNA transcripts to thereby inhibit translation of the protein encoded by the mRNA. A ribozyme having specificity for a nucleic acid molecule encoding a polypeptide corresponding to a marker of the invention can be designed based upon the nucleotide sequence of a cDNA corresponding to the marker. For example, a derivative of a *Tetrahymena* L-19 IVS RNA can be constructed in which the nucleotide sequence of the active site is complementary to the nucleotide sequence to be cleaved (see Cech *et al.* U.S. Patent No. 4,987,071; and Cech *et al.* U.S. Patent No. 5,116,742). Alternatively, an mRNA encoding a polypeptide of the invention can be used to select a catalytic RNA having a specific ribonuclease activity from a pool of RNA molecules (see, *e.g.*, Bartel and Szostak, 1993, *Science* 261:1411-1418).

The invention also encompasses nucleic acid molecules which form triple helical structures. For example, expression of a polypeptide of the invention can be inhibited by targeting nucleotide sequences complementary to the regulatory region of the gene encoding the polypeptide (*e.g.*, the promoter and/or enhancer) to form triple helical structures that prevent transcription of the gene in target cells. See generally Helene

(1991) *Anticancer Drug Des.* 6(6):569-84; Helene (1992) *Ann. N.Y. Acad. Sci.* 660:27-36; and Maher (1992) *Bioassays* 14(12):807-15.

In various embodiments, the nucleic acid molecules of the invention can be modified at the base moiety, sugar moiety or phosphate backbone to improve, *e.g.*, the stability, hybridization, or solubility of the molecule. For example, the deoxyribose phosphate backbone of the nucleic acids can be modified to generate peptide nucleic acids (see Hyrup *et al.*, 1996, *Bioorganic & Medicinal Chemistry* 4(1): 5-23). As used herein, the terms "peptide nucleic acids" or "PNAs" refer to nucleic acid mimics, *e.g.*, DNA mimics, in which the deoxyribose phosphate backbone is replaced by a pseudopeptide backbone and only the four natural nucleobases are retained. The neutral backbone of PNAs has been shown to allow for specific hybridization to DNA and RNA under conditions of low ionic strength. The synthesis of PNA oligomers can be performed using standard solid phase peptide synthesis protocols as described in Hyrup *et al.* (1996), *supra*; Perry-O'Keefe *et al.* (1996) *Proc. Natl. Acad. Sci. USA* 93:14670-675.

PNAs can be used in therapeutic and diagnostic applications. For example, PNAs can be used as antisense or antigene agents for sequence-specific modulation of gene expression by, *e.g.*, inducing transcription or translation arrest or inhibiting replication. PNAs can also be used, *e.g.*, in the analysis of single base pair mutations in a gene by, *e.g.*, PNA directed PCR clamping; as artificial restriction enzymes when used in combination with other enzymes, *e.g.*, S1 nucleases (Hyrup (1996), *supra*; or as probes or primers for DNA sequence and hybridization (Hyrup, 1996, *supra*; Perry-O'Keefe *et al.*, 1996, *Proc. Natl. Acad. Sci. USA* 93:14670-675).

In another embodiment, PNAs can be modified, *e.g.*, to enhance their stability or cellular uptake, by attaching lipophilic or other helper groups to PNA, by the formation of PNA-DNA chimeras, or by the use of liposomes or other techniques of drug delivery known in the art. For example, PNA-DNA chimeras can be generated which can combine the advantageous properties of PNA and DNA. Such chimeras allow DNA recognition enzymes, *e.g.*, RNASE H and DNA polymerases, to interact with the DNA portion while the PNA portion would provide high binding affinity and specificity. PNA-DNA chimeras can be linked using linkers of appropriate lengths selected in terms of base stacking, number of bonds between the nucleobases, and orientation (Hyrup,

- 38 -

1996, *supra*). The synthesis of PNA-DNA chimeras can be performed as described in Hyrup (1996), *supra*, and Finn *et al.* (1996) *Nucleic Acids Res.* 24(17):3357-63. For example, a DNA chain can be synthesized on a solid support using standard phosphoramidite coupling chemistry and modified nucleoside analogs. Compounds
5 such as 5'-(4-methoxytrityl)amino-5'-deoxy-thymidine phosphoramidite can be used as a link between the PNA and the 5' end of DNA (Mag *et al.*, 1989, *Nucleic Acids Res.* 17:5973-88). PNA monomers are then coupled in a step-wise manner to produce a chimeric molecule with a 5' PNA segment and a 3' DNA segment (Finn *et al.*, 1996, *Nucleic Acids Res.* 24(17):3357-63). Alternatively, chimeric molecules can be
10 synthesized with a 5' DNA segment and a 3' PNA segment (Peterser *et al.*, 1975, *Bioorganic Med. Chem. Lett.* 5:1119-11124).

In other embodiments, the oligonucleotide can include other appended groups such as peptides (*e.g.*, for targeting host cell receptors *in vivo*), or agents facilitating transport across the cell membrane (see, *e.g.*, Letsinger *et al.*, 1989, *Proc. Natl. Acad. Sci. USA* 86:6553-6556; Lemaitre *et al.*, 1987, *Proc. Natl. Acad. Sci. USA* 84:648-652;
15 PCT Publication No. WO 88/09810) or the blood-brain barrier (see, *e.g.*, PCT Publication No. WO 89/10134). In addition, oligonucleotides can be modified with hybridization-triggered cleavage agents (see, *e.g.*, Krol *et al.*, 1988, *Bio/Techniques* 6:958-976) or intercalating agents (see, *e.g.*, Zon, 1988, *Pharm. Res.* 5:539-549). To
20 this end, the oligonucleotide can be conjugated to another molecule, *e.g.*, a peptide, hybridization triggered cross-linking agent, transport agent, hybridization-triggered cleavage agent, etc.

The invention also includes molecular beacon nucleic acids having at least one region which is complementary to a nucleic acid of the invention, such that the
25 molecular beacon is useful for quantitating the presence of the nucleic acid of the invention in a sample. A "molecular beacon" nucleic acid is a nucleic acid comprising a pair of complementary regions and having a fluorophore and a fluorescent quencher associated therewith. The fluorophore and quencher are associated with different portions of the nucleic acid in such an orientation that when the complementary regions
30 are annealed with one another, fluorescence of the fluorophore is quenched by the quencher. When the complementary regions of the nucleic acid are not annealed with

- 39 -

one another, fluorescence of the fluorophore is quenched to a lesser degree. Molecular beacon nucleic acids are described, for example, in U.S. Patent 5,876,930.

II. Isolated Proteins and Antibodies

- 5 One aspect of the invention pertains to isolated proteins which correspond to individual markers of the invention, and biologically active portions thereof, as well as polypeptide fragments suitable for use as immunogens to raise antibodies directed against a polypeptide corresponding to a marker of the invention. In one embodiment, the native polypeptide corresponding to a marker can be isolated from cells or tissue
- 10 sources by an appropriate purification scheme using standard protein purification techniques. In another embodiment, polypeptides corresponding to a marker of the invention are produced by recombinant DNA techniques. Alternative to recombinant expression, a polypeptide corresponding to a marker of the invention can be synthesized chemically using standard peptide synthesis techniques.
- 15 An "isolated" or "purified" protein or biologically active portion thereof is substantially free of cellular material or other contaminating proteins from the cell or tissue source from which the protein is derived, or substantially free of chemical precursors or other chemicals when chemically synthesized. The language
- 20 "substantially free of cellular material" includes preparations of protein in which the protein is separated from cellular components of the cells from which it is isolated or recombinantly produced. Thus, protein that is substantially free of cellular material includes preparations of protein having less than about 30%, 20%, 10%, or 5% (by dry weight) of heterologous protein (also referred to herein as a "contaminating protein").
- When the protein or biologically active portion thereof is recombinantly produced, it is
- 25 also preferably substantially free of culture medium, *i.e.*, culture medium represents less than about 20%, 10%, or 5% of the volume of the protein preparation. When the protein is produced by chemical synthesis, it is preferably substantially free of chemical precursors or other chemicals, *i.e.*, it is separated from chemical precursors or other chemicals which are involved in the synthesis of the protein. Accordingly such
- 30 preparations of the protein have less than about 30%, 20%, 10%, 5% (by dry weight) of chemical precursors or compounds other than the polypeptide of interest.

- 40 -

Biologically active portions of a polypeptide corresponding to a marker of the invention include polypeptides comprising amino acid sequences sufficiently identical to or derived from the amino acid sequence of the protein corresponding to the marker, which include fewer amino acids than the full length protein, and exhibit at least one activity of the corresponding full-length protein. Typically, biologically active portions comprise a domain or motif with at least one activity of the corresponding protein. A biologically active portion of a protein of the invention can be a polypeptide which is, for example, 10, 25, 50, 100 or more amino acids in length. Moreover, other biologically active portions, in which other regions of the protein are deleted, can be prepared by recombinant techniques and evaluated for one or more of the functional activities of the native form of a polypeptide of the invention.

Preferred polypeptides are encoded by the nucleotide sequences of Tables 1-2. Other useful proteins are substantially identical (*e.g.*, at least about 40%, preferably 50%, 60%, 70%, 80%, 90%, 95%, or 99%) to one of these sequences and retain the functional activity of the protein of the corresponding naturally-occurring protein yet differ in amino acid sequence due to natural allelic variation or mutagenesis.

To determine the percent identity of two amino acid sequences or of two nucleic acids, the sequences are aligned for optimal comparison purposes (*e.g.*, gaps can be introduced in the sequence of a first amino acid or nucleic acid sequence for optimal alignment with a second amino or nucleic acid sequence). The amino acid residues or nucleotides at corresponding amino acid positions or nucleotide positions are then compared. When a position in the first sequence is occupied by the same amino acid residue or nucleotide as the corresponding position in the second sequence, then the molecules are identical at that position. The percent identity between the two sequences is a function of the number of identical positions shared by the sequences (*i.e.*, % identity = # of identical positions/total # of positions (*e.g.*, overlapping positions) x100). In one embodiment the two sequences are the same length.

The determination of percent identity between two sequences can be accomplished using a mathematical algorithm. A preferred, non-limiting example of a mathematical algorithm utilized for the comparison of two sequences is the algorithm of Karlin and Altschul (1990) *Proc. Natl. Acad. Sci. USA* 87:2264-2268, modified as in Karlin and Altschul (1993) *Proc. Natl. Acad. Sci. USA* 90:5873-5877. Such an

- 41 -

algorithm is incorporated into the NBLAST and XBLAST programs of Altschul, *et al.* (1990) *J. Mol. Biol.* 215:403-410. BLAST nucleotide searches can be performed with the NBLAST program, score = 100, wordlength = 12 to obtain nucleotide sequences homologous to a nucleic acid molecules of the invention. BLAST protein searches can be performed with the XBLAST program, score = 50, wordlength = 3 to obtain amino acid sequences homologous to a protein molecules of the invention. To obtain gapped alignments for comparison purposes, Gapped BLAST can be utilized as described in Altschul *et al.* (1997) *Nucleic Acids Res.* 25:3389-3402. Alternatively, PSI-Blast can be used to perform an iterated search which detects distant relationships between molecules. When utilizing BLAST, Gapped BLAST, and PSI-Blast programs, the default parameters of the respective programs (*e.g.*, XBLAST and NBLAST) can be used. See <http://www.ncbi.nlm.nih.gov>. Another preferred, non-limiting example of a mathematical algorithm utilized for the comparison of sequences is the algorithm of Myers and Miller, (1988) *CABIOS* 4:11-17. Such an algorithm is incorporated into the ALIGN program (version 2.0) which is part of the GCG sequence alignment software package. When utilizing the ALIGN program for comparing amino acid sequences, a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4 can be used. Yet another useful algorithm for identifying regions of local sequence similarity and alignment is the FASTA algorithm as described in Pearson and Lipman (1988) *Proc. Natl. Acad. Sci. USA* 85:2444-2448. When using the FASTA algorithm for comparing nucleotide or amino acid sequences, a PAM120 weight residue table can, for example, be used with a *k*-tuple value of 2.

The percent identity between two sequences can be determined using techniques similar to those described above, with or without allowing gaps. In calculating percent identity, only exact matches are counted.

The invention also provides chimeric or fusion proteins corresponding to a marker of the invention. As used herein, a "chimeric protein" or "fusion protein" comprises all or part (preferably a biologically active part) of a polypeptide corresponding to a marker of the invention operably linked to a heterologous polypeptide (*i.e.*, a polypeptide other than the polypeptide corresponding to the marker). Within the fusion protein, the term "operably linked" is intended to indicate that the polypeptide of the invention and the heterologous polypeptide are fused in-frame to each

- 42 -

other. The heterologous polypeptide can be fused to the amino-terminus or the carboxyl-terminus of the polypeptide of the invention.

One useful fusion protein is a GST fusion protein in which a polypeptide corresponding to a marker of the invention is fused to the carboxyl terminus of GST sequences. Such fusion proteins can facilitate the purification of a recombinant polypeptide of the invention.

In another embodiment, the fusion protein contains a heterologous signal sequence at its amino terminus. For example, the native signal sequence of a polypeptide corresponding to a marker of the invention can be removed and replaced with a signal sequence from another protein. For example, the gp67 secretory sequence of the baculovirus envelope protein can be used as a heterologous signal sequence (Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, NY, 1992). Other examples of eukaryotic heterologous signal sequences include the secretory sequences of melittin and human placental alkaline phosphatase (Stratagene; La Jolla, California). In yet another example, useful prokaryotic heterologous signal sequences include the phoA secretory signal (Sambrook *et al.*, *supra*) and the protein A secretory signal (Pharmacia Biotech; Piscataway, New Jersey).

In yet another embodiment, the fusion protein is an immunoglobulin fusion protein in which all or part of a polypeptide corresponding to a marker of the invention is fused to sequences derived from a member of the immunoglobulin protein family. The immunoglobulin fusion proteins of the invention can be incorporated into pharmaceutical compositions and administered to a subject to inhibit an interaction between a ligand (soluble or membrane-bound) and a protein on the surface of a cell (receptor), to thereby suppress signal transduction *in vivo*. The immunoglobulin fusion protein can be used to affect the bioavailability of a cognate ligand of a polypeptide of the invention. Inhibition of ligand/receptor interaction can be useful therapeutically, both for treating proliferative and differentiative disorders and for modulating (*e.g.* promoting or inhibiting) cell survival. Moreover, the immunoglobulin fusion proteins of the invention can be used as immunogens to produce antibodies directed against a polypeptide of the invention in a subject, to purify ligands and in screening assays to identify molecules which inhibit the interaction of receptors with ligands.

- 43 -

Chimeric and fusion proteins of the invention can be produced by standard recombinant DNA techniques. In another embodiment, the fusion gene can be synthesized by conventional techniques including automated DNA synthesizers. Alternatively, PCR amplification of gene fragments can be carried out using anchor
5 primers which give rise to complementary overhangs between two consecutive gene fragments which can subsequently be annealed and re-amplified to generate a chimeric gene sequence (see, *e.g.*, Ausubel *et al.*, *supra*). Moreover, many expression vectors are commercially available that already encode a fusion moiety (*e.g.*, a GST polypeptide). A nucleic acid encoding a polypeptide of the invention can be cloned into such an
10 expression vector such that the fusion moiety is linked in-frame to the polypeptide of the invention.

A signal sequence can be used to facilitate secretion and isolation of the secreted protein or other proteins of interest. Signal sequences are typically characterized by a core of hydrophobic amino acids which are generally cleaved from the mature protein
15 during secretion in one or more cleavage events. Such signal peptides contain processing sites that allow cleavage of the signal sequence from the mature proteins as they pass through the secretory pathway. Thus, the invention pertains to the described polypeptides having a signal sequence, as well as to polypeptides from which the signal sequence has been proteolytically cleaved (*i.e.*, the cleavage products). In one
20 embodiment, a nucleic acid sequence encoding a signal sequence can be operably linked in an expression vector to a protein of interest, such as a protein which is ordinarily not secreted or is otherwise difficult to isolate. The signal sequence directs secretion of the protein, such as from a eukaryotic host into which the expression vector is transformed, and the signal sequence is subsequently or concurrently cleaved. The protein can then
25 be readily purified from the extracellular medium by art recognized methods. Alternatively, the signal sequence can be linked to the protein of interest using a sequence which facilitates purification, such as with a GST domain.

The present invention also pertains to variants of the polypeptides corresponding to individual markers of the invention. Such variants have an altered amino acid
30 sequence which can function as either agonists (mimetics) or as antagonists. Variants can be generated by mutagenesis, *e.g.*, discrete point mutation or truncation. An agonist can retain substantially the same, or a subset, of the biological activities of the naturally

- 44 -

occurring form of the protein. An antagonist of a protein can inhibit one or more of the activities of the naturally occurring form of the protein by, for example, competitively binding to a downstream or upstream member of a cellular signaling cascade which includes the protein of interest. Thus, specific biological effects can be elicited by treatment with a variant of limited function. Treatment of a subject with a variant having a subset of the biological activities of the naturally occurring form of the protein can have fewer side effects in a subject relative to treatment with the naturally occurring form of the protein.

Variants of a protein of the invention which function as either agonists (mimetics) or as antagonists can be identified by screening combinatorial libraries of mutants, *e.g.*, truncation mutants, of the protein of the invention for agonist or antagonist activity. In one embodiment, a variegated library of variants is generated by combinatorial mutagenesis at the nucleic acid level and is encoded by a variegated gene library. A variegated library of variants can be produced by, for example, enzymatically ligating a mixture of synthetic oligonucleotides into gene sequences such that a degenerate set of potential protein sequences is expressible as individual polypeptides, or alternatively, as a set of larger fusion proteins (*e.g.*, for phage display). There are a variety of methods which can be used to produce libraries of potential variants of the polypeptides of the invention from a degenerate oligonucleotide sequence. Methods for synthesizing degenerate oligonucleotides are known in the art (see, *e.g.*, Narang, 1983, *Tetrahedron* 39:3; Itakura *et al.*, 1984, *Annu. Rev. Biochem.* 53:323; Itakura *et al.*, 1984, *Science* 198:1056; Ike *et al.*, 1983 *Nucleic Acid Res.* 11:477).

In addition, libraries of fragments of the coding sequence of a polypeptide corresponding to a marker of the invention can be used to generate a variegated population of polypeptides for screening and subsequent selection of variants. For example, a library of coding sequence fragments can be generated by treating a double stranded PCR fragment of the coding sequence of interest with a nuclease under conditions wherein nicking occurs only about once per molecule, denaturing the double stranded DNA, renaturing the DNA to form double stranded DNA which can include sense/antisense pairs from different nicked products, removing single stranded portions from reformed duplexes by treatment with S1 nuclease, and ligating the resulting fragment library into an expression vector. By this method, an expression library can be

- 45 -

derived which encodes amino terminal and internal fragments of various sizes of the protein of interest.

Several techniques are known in the art for screening gene products of combinatorial libraries made by point mutations or truncation, and for screening cDNA
5 libraries for gene products having a selected property. The most widely used techniques, which are amenable to high through-put analysis, for screening large gene libraries typically include cloning the gene library into replicable expression vectors, transforming appropriate cells with the resulting library of vectors, and expressing the combinatorial genes under conditions in which detection of a desired activity facilitates
10 isolation of the vector encoding the gene whose product was detected. Recursive ensemble mutagenesis (REM), a technique which enhances the frequency of functional mutants in the libraries, can be used in combination with the screening assays to identify variants of a protein of the invention (Arkin and Yourvan, 1992, *Proc. Natl. Acad. Sci. USA* 89:7811-7815; Delgrave *et al.*, 1993, *Protein Engineering* 6(3):327- 331).

15 An isolated polypeptide corresponding to a marker of the invention, or a fragment thereof, can be used as an immunogen to generate antibodies using standard techniques for polyclonal and monoclonal antibody preparation. The full-length polypeptide or protein can be used or, alternatively, the invention provides antigenic peptide fragments for use as immunogens. The antigenic peptide of a protein of the
20 invention comprises at least 8 (preferably 10, 15, 20, or 30 or more) amino acid residues of the amino acid sequence of one of the polypeptides of the invention, and encompasses an epitope of the protein such that an antibody raised against the peptide forms a specific immune complex with a marker of the invention to which the protein corresponds. Preferred epitopes encompassed by the antigenic peptide are regions that are located on
25 the surface of the protein, *e.g.*, hydrophilic regions. Hydrophobicity sequence analysis, hydrophilicity sequence analysis, or similar analyses can be used to identify hydrophilic regions.

An immunogen typically is used to prepare antibodies by immunizing a suitable (*i.e.* immunocompetent) subject such as a rabbit, goat, mouse, or other mammal or
30 vertebrate. An appropriate immunogenic preparation can contain, for example, recombinantly-expressed or chemically-synthesized polypeptide. The preparation can

- 46 -

further include an adjuvant, such as Freund's complete or incomplete adjuvant, or a similar immunostimulatory agent.

Accordingly, another aspect of the invention pertains to antibodies directed against a polypeptide of the invention. The terms "antibody" and "antibody substance" as used interchangeably herein refer to immunoglobulin molecules and immunologically active portions of immunoglobulin molecules, *i.e.*, molecules that contain an antigen binding site which specifically binds an antigen, such as a polypeptide of the invention, *e.g.*, an epitope of a polypeptide of the invention. A molecule which specifically binds to a given polypeptide of the invention is a molecule which binds the polypeptide, but does not substantially bind other molecules in a sample, *e.g.*, a biological sample, which naturally contains the polypeptide. Examples of immunologically active portions of immunoglobulin molecules include F(ab) and F(ab')₂ fragments which can be generated by treating the antibody with an enzyme such as pepsin. The invention provides polyclonal and monoclonal antibodies. The term "monoclonal antibody" or "monoclonal antibody composition", as used herein, refers to a population of antibody molecules that contain only one species of an antigen binding site capable of immunoreacting with a particular epitope.

Polyclonal antibodies can be prepared as described above by immunizing a suitable subject with a polypeptide of the invention as an immunogen. Preferred polyclonal antibody compositions are ones that have been selected for antibodies directed against a polypeptide or polypeptides of the invention. Particularly preferred polyclonal antibody preparations are ones that contain only antibodies directed against a polypeptide or polypeptides of the invention. Particularly preferred immunogen compositions are those that contain no other human proteins such as, for example, immunogen compositions made using a non-human host cell for recombinant expression of a polypeptide of the invention. In such a manner, the only human epitope or epitopes recognized by the resulting antibody compositions raised against this immunogen will be present as part of a polypeptide or polypeptides of the invention.

The antibody titer in the immunized subject can be monitored over time by standard techniques, such as with an enzyme linked immunosorbent assay (ELISA) using immobilized polypeptide. If desired, the antibody molecules can be harvested or isolated from the subject (*e.g.*, from the blood or serum of the subject) and further

- 47 -

purified by well-known techniques, such as protein A chromatography to obtain the IgG fraction. Alternatively, antibodies specific for a protein or polypeptide of the invention can be selected or (*e.g.*, partially purified) or purified by, *e.g.*, affinity chromatography. For example, a recombinantly expressed and purified (or partially purified) protein of the invention is produced as described herein, and covalently or non-covalently coupled to a solid support such as, for example, a chromatography column. The column can then be used to affinity purify antibodies specific for the proteins of the invention from a sample containing antibodies directed against a large number of different epitopes, thereby generating a substantially purified antibody composition, *i.e.*, one that is substantially free of contaminating antibodies. By a substantially purified antibody composition is meant, in this context, that the antibody sample contains at most only 30% (by dry weight) of contaminating antibodies directed against epitopes other than those of the desired protein or polypeptide of the invention, and preferably at most 20%, yet more preferably at most 10%, and most preferably at most 5% (by dry weight) of the sample is contaminating antibodies. A purified antibody composition means that at least 99% of the antibodies in the composition are directed against the desired protein or polypeptide of the invention.

At an appropriate time after immunization, *e.g.*, when the specific antibody titers are highest, antibody-producing cells can be obtained from the subject and used to prepare monoclonal antibodies by standard techniques, such as the hybridoma technique originally described by Kohler and Milstein (1975) *Nature* 256:495-497, the human B cell hybridoma technique (see Kozbor *et al.*, 1983, *Immunol. Today* 4:72), the EBV-hybridoma technique (see Cole *et al.*, pp. 77-96 In *Monoclonal Antibodies and Cancer Therapy*, Alan R. Liss, Inc., 1985) or trioma techniques. The technology for producing hybridomas is well known (see generally *Current Protocols in Immunology*, Coligan *et al.* ed., John Wiley & Sons, New York, 1994). Hybridoma cells producing a monoclonal antibody of the invention are detected by screening the hybridoma culture supernatants for antibodies that bind the polypeptide of interest, *e.g.*, using a standard ELISA assay.

Alternative to preparing monoclonal antibody-secreting hybridomas, a monoclonal antibody directed against a polypeptide of the invention can be identified and isolated by screening a recombinant combinatorial immunoglobulin library (*e.g.*, an

- 48 -

antibody phage display library) with the polypeptide of interest. Kits for generating and screening phage display libraries are commercially available (e.g., the Pharmacia *Recombinant Phage Antibody System*, Catalog No. 27-9400-01; and the Stratagene *SurfZAP Phage Display Kit*, Catalog No. 240612). Additionally, examples of methods and reagents particularly amenable for use in generating and screening antibody display library can be found in, for example, U.S. Patent No. 5,223,409; PCT Publication No. WO 92/18619; PCT Publication No. WO 91/17271; PCT Publication No. WO 92/20791; PCT Publication No. WO 92/15679; PCT Publication No. WO 93/01288; PCT Publication No. WO 92/01047; PCT Publication No. WO 92/09690; PCT Publication No. WO 90/02809; Fuchs *et al.* (1991) *Bio/Technology* 9:1370-1372; Hay *et al.* (1992) *Hum. Antibod. Hybridomas* 3:81-85; Huse *et al.* (1989) *Science* 246:1275-1281; Griffiths *et al.* (1993) *EMBO J.* 12:725-734.

Additionally, recombinant antibodies, such as chimeric and humanized monoclonal antibodies, comprising both human and non-human portions, which can be made using standard recombinant DNA techniques, are within the scope of the invention. A chimeric antibody is a molecule in which different portions are derived from different animal species, such as those having a variable region derived from a murine mAb and a human immunoglobulin constant region. (See, e.g., Cabilly *et al.*, U.S. Patent No. 4,816,567; and Boss *et al.*, U.S. Patent No. 4,816,397, which are incorporated herein by reference in their entirety.) Humanized antibodies are antibody molecules from non-human species having one or more complementarily determining regions (CDRs) from the non-human species and a framework region from a human immunoglobulin molecule. (See, e.g., Queen, U.S. Patent No. 5,585,089, which is incorporated herein by reference in its entirety.) Such chimeric and humanized monoclonal antibodies can be produced by recombinant DNA techniques known in the art, for example using methods described in PCT Publication No. WO 87/02671; European Patent Application 184,187; European Patent Application 171,496; European Patent Application 173,494; PCT Publication No. WO 86/01533; U.S. Patent No. 4,816,567; European Patent Application 125,023; Better *et al.* (1988) *Science* 240:1041-1043; Liu *et al.* (1987) *Proc. Natl. Acad. Sci. USA* 84:3439-3443; Liu *et al.* (1987) *J. Immunol.* 139:3521-3526; Sun *et al.* (1987) *Proc. Natl. Acad. Sci. USA* 84:214-218; Nishimura *et al.* (1987) *Cancer Res.* 47:999-1005; Wood *et al.* (1985) *Nature* 314:446-

449; and Shaw *et al.* (1988) *J. Natl. Cancer Inst.* 80:1553-1559); Morrison (1985) *Science* 229:1202-1207; Oi *et al.* (1986) *Bio/Techniques* 4:214; U.S. Patent 5,225,539; Jones *et al.* (1986) *Nature* 321:552-525; Verhoeyan *et al.* (1988) *Science* 239:1534; and Beidler *et al.* (1988) *J. Immunol.* 141:4053-4060.

5 Antibodies of the invention may be used as therapeutic agents in treating cancers. In a preferred embodiment, completely human antibodies of the invention are used for therapeutic treatment of human cancer patients, particularly those having an ovarian cancer. Such antibodies can be produced, for example, using transgenic mice which are incapable of expressing endogenous immunoglobulin heavy and light chains
10 genes, but which can express human heavy and light chain genes. The transgenic mice are immunized in the normal fashion with a selected antigen, *e.g.*, all or a portion of a polypeptide corresponding to a marker of the invention. Monoclonal antibodies directed against the antigen can be obtained using conventional hybridoma technology. The human immunoglobulin transgenes harbored by the transgenic mice rearrange during B
15 cell differentiation, and subsequently undergo class switching and somatic mutation. Thus, using such a technique, it is possible to produce therapeutically useful IgG, IgA and IgE antibodies. For an overview of this technology for producing human antibodies, see Lonberg and Huszar (1995) *Int. Rev. Immunol.* 13:65-93). For a detailed discussion of this technology for producing human antibodies and human monoclonal antibodies
20 and protocols for producing such antibodies, see, *e.g.*, U.S. Patent 5,625,126; U.S. Patent 5,633,425; U.S. Patent 5,569,825; U.S. Patent 5,661,016; and U.S. Patent 5,545,806. In addition, companies such as Abgenix, Inc. (Freemont, CA), can be engaged to provide human antibodies directed against a selected antigen using technology similar to that described above.

25 Completely human antibodies which recognize a selected epitope can be generated using a technique referred to as "guided selection." In this approach a selected non-human monoclonal antibody, *e.g.*, a murine antibody, is used to guide the selection of a completely human antibody recognizing the same epitope (Jespers *et al.*, 1994, *Bio/technology* 12:899-903).

30 An antibody directed against a polypeptide corresponding to a marker of the invention (*e.g.*, a monoclonal antibody) can be used to isolate the polypeptide by standard techniques, such as affinity chromatography or immunoprecipitation.

- 50 -

Moreover, such an antibody can be used to detect the marker (*e.g.*, in a cellular lysate or cell supernatant) in order to evaluate the level and pattern of expression of the marker. The antibodies can also be used diagnostically to monitor protein levels in tissues or body fluids (*e.g.* in an ovary-associated body fluid) as part of a clinical testing
5 procedure, *e.g.*, to, for example, determine the efficacy of a given treatment regimen. Detection can be facilitated by coupling the antibody to a detectable substance. Examples of detectable substances include various enzymes, prosthetic groups, fluorescent materials, luminescent materials, bioluminescent materials, and radioactive materials. Examples of suitable enzymes include horseradish peroxidase, alkaline
10 phosphatase, β -galactosidase, or acetylcholinesterase; examples of suitable prosthetic group complexes include streptavidin/biotin and avidin/biotin; examples of suitable fluorescent materials include umbelliferone, fluorescein, fluorescein isothiocyanate, rhodamine, dichlorotriazinylamine fluorescein, dansyl chloride or phycoerythrin; an example of a luminescent material includes luminol; examples of bioluminescent
15 materials include luciferase, luciferin, and aequorin, and examples of suitable radioactive material include ^{125}I , ^{131}I , ^{35}S or ^3H .

Further, an antibody (or fragment thereof) can be conjugated to a therapeutic moiety such as a cytotoxin, a therapeutic agent or a radioactive metal ion. A cytotoxin or cytotoxic agent includes any agent that is detrimental to cells. Examples include
20 taxol, cytochalasin B, gramicidin D, ethidium bromide, emetine, mitomycin, etoposide, tenoposide, vincristine, vinblastine, colchicin, doxorubicin, daunorubicin, dihydroxy anthracin dione, mitoxantrone, mithramycin, actinomycin D, 1-dehydrotestosterone, glucocorticoids, procaine, tetracaine, lidocaine, propranolol, and puromycin and analogs or homologs thereof. Therapeutic agents include, but are not limited to, antimetabolites
25 (*e.g.*, methotrexate, 6-mercaptopurine, 6-thioguanine, cytarabine, 5-fluorouracil decarbazine), alkylating agents (*e.g.*, mechlorethamine, thioepa chlorambucil, melphalan, carmustine (BSNU) and lomustine (CCNU), cyclophosphamide, busulfan, dibromomannitol, streptozotocin, mitomycin C, and cis-dichlorodiamine platinum (II) (DDP) cisplatin), anthracyclines (*e.g.*, daunorubicin (formerly daunomycin) and
30 doxorubicin), antibiotics (*e.g.*, dactinomycin (formerly actinomycin), bleomycin, mithramycin, and anthramycin (AMC)), and anti-mitotic agents (*e.g.*, vincristine and vinblastine).

- 51 -

The conjugates of the invention can be used for modifying a given biological response, the drug moiety is not to be construed as limited to classical chemical therapeutic agents. For example, the drug moiety may be a protein or polypeptide possessing a desired biological activity. Such proteins may include, for example, a toxin
5 such as abrin, ricin A, pseudomonas exotoxin, or diphtheria toxin; a protein such as tumor necrosis factor, .alpha.-interferon, .beta.-interferon, nerve growth factor, platelet derived growth factor, tissue plasminogen activator; or, biological response modifiers such as, for example, lymphokines, interleukin-1 ("IL-1"), interleukin-2 ("IL-2"), interleukin-6 ("IL-6"), granulocyte macrophage colony stimulating factor ("GM-CSF"),
10 granulocyte colony stimulating factor ("G-CSF"), or other growth factors.

Techniques for conjugating such therapeutic moiety to antibodies are well known, see, *e.g.*, Arnon et al., "Monoclonal Antibodies For Immunotargeting Of Drugs In Cancer Therapy", in *Monoclonal Antibodies And Cancer Therapy*, Reisfeld et al. (eds.), pp. 243-56 (Alan R. Liss, Inc. 1985); Hellstrom et al., "Antibodies For Drug
15 Delivery", in *Controlled Drug Delivery* (2nd Ed.), Robinson et al. (eds.), pp. 623-53 (Marcel Dekker, Inc. 1987); Thorpe, "Antibody Carriers Of Cytotoxic Agents In Cancer Therapy: A Review", in *Monoclonal Antibodies '84: Biological And Clinical Applications*, Pinchera et al. (eds.), pp. 475-506 (1985); "Analysis, Results, And Future Prospective Of The Therapeutic Use Of Radiolabeled Antibody In Cancer Therapy", in
20 *Monoclonal Antibodies For Cancer Detection And Therapy*, Baldwin et al. (eds.), pp. 303-16 (Academic Press 1985), and Thorpe et al., "The Preparation And Cytotoxic Properties Of Antibody-Toxin Conjugates", *Immunol. Rev.*, 62:119-58 (1982).

Alternatively, an antibody can be conjugated to a second antibody to form an antibody heteroconjugate as described by Segal in U.S. Patent No. 4,676,980.

25 Accordingly, in one aspect, the invention provides substantially purified antibodies or fragments thereof, and non-human antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of the amino acid sequences of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a
30 fragment of at least 15 amino acid residues of an amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the

- 52 -

ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. In various embodiments, the substantially purified antibodies of the invention, or fragments thereof, can be human, non-human, chimeric and/or humanized antibodies.

In another aspect, the invention provides non-human antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of: the amino acid sequence of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a fragment of at least 15 amino acid residues of the amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. Such non-human antibodies can be goat, mouse, sheep, horse, chicken, rabbit, or rat antibodies. Alternatively, the non-human antibodies of the invention can be chimeric and/or humanized antibodies. In addition, the non-human antibodies of the invention can be polyclonal antibodies or monoclonal antibodies.

In still a further aspect, the invention provides monoclonal antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of the amino acid sequences of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a fragment of at least 15 amino acid residues of an amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to an amino acid sequence of the present invention (wherein the percent

- 53 -

identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention,
5 or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. The monoclonal antibodies can be human, humanized, chimeric and/or non-human antibodies.

The substantially purified antibodies or fragments thereof may specifically bind to a signal peptide, a secreted sequence, an extracellular domain, a transmembrane or a
10 cytoplasmic domain or cytoplasmic membrane of a polypeptide of the invention. In a particularly preferred embodiment, the substantially purified antibodies or fragments thereof, the non-human antibodies or fragments thereof, and/or the monoclonal antibodies or fragments thereof, of the invention specifically bind to a secreted sequence or an extracellular domain of the amino acid sequences of the present invention.

15 Any of the antibodies of the invention can be conjugated to a therapeutic moiety or to a detectable substance. Non-limiting examples of detectable substances that can be conjugated to the antibodies of the invention are an enzyme, a prosthetic group, a fluorescent material, a luminescent material, a bioluminescent material, and a radioactive material.

20 The invention also provides a kit containing an antibody of the invention conjugated to a detectable substance, and instructions for use. Still another aspect of the invention is a pharmaceutical composition comprising an antibody of the invention and a pharmaceutically acceptable carrier. In preferred embodiments, the pharmaceutical composition contains an antibody of the invention, a therapeutic moiety, and a
25 pharmaceutically acceptable carrier.

Still another aspect of the invention is a method of making an antibody that specifically recognizes a polypeptide of the present invention, the method comprising immunizing a mammal with a polypeptide. The polypeptide used as an immungen comprises an amino acid sequence selected from the group consisting of the amino acid
30 sequence of the present invention, an amino acid sequence encoded by the cDNA of the nucleic acid molecules of the present invention, a fragment of at least 15 amino acid residues of the amino acid sequence of the present invention, an amino acid sequence

- 54 -

which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C.

After immunization, a sample is collected from the mammal that contains an antibody that specifically recognizes the polypeptide. Preferably, the polypeptide is recombinantly produced using a non-human host cell. Optionally, the antibodies can be further purified from the sample using techniques well known to those of skill in the art. The method can further comprise producing a monoclonal antibody-producing cell from the cells of the mammal. Optionally, antibodies are collected from the antibody-producing cell.

15

III. Recombinant Expression Vectors and Host Cells

Another aspect of the invention pertains to vectors, preferably expression vectors, containing a nucleic acid encoding a polypeptide corresponding to a marker of the invention (or a portion of such a polypeptide). As used herein, the term "vector" refers to a nucleic acid molecule capable of transporting another nucleic acid to which it has been linked. One type of vector is a "plasmid", which refers to a circular double stranded DNA loop into which additional DNA segments can be ligated. Another type of vector is a viral vector, wherein additional DNA segments can be ligated into the viral genome. Certain vectors are capable of autonomous replication in a host cell into which they are introduced (*e.g.*, bacterial vectors having a bacterial origin of replication and episomal mammalian vectors). Other vectors (*e.g.*, non-episomal mammalian vectors) are integrated into the genome of a host cell upon introduction into the host cell, and thereby are replicated along with the host genome. Moreover, certain vectors, namely expression vectors, are capable of directing the expression of genes to which they are operably linked. In general, expression vectors of utility in recombinant DNA techniques are often in the form of plasmids (vectors). However, the invention is intended to include such other forms of expression vectors, such as viral vectors (*e.g.*,

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- 55 -

replication defective retroviruses, adenoviruses and adeno-associated viruses), which serve equivalent functions.

The recombinant expression vectors of the invention comprise a nucleic acid of the invention in a form suitable for expression of the nucleic acid in a host cell. This
5 means that the recombinant expression vectors include one or more regulatory sequences, selected on the basis of the host cells to be used for expression, which is operably linked to the nucleic acid sequence to be expressed. Within a recombinant expression vector, "operably linked" is intended to mean that the nucleotide sequence of interest is linked to the regulatory sequence(s) in a manner which allows for expression
10 of the nucleotide sequence (*e.g.*, in an *in vitro* transcription/translation system or in a host cell when the vector is introduced into the host cell). The term "regulatory sequence" is intended to include promoters, enhancers and other expression control elements (*e.g.*, polyadenylation signals). Such regulatory sequences are described, for example, in Goeddel, *Methods in Enzymology: Gene Expression Technology* vol.185,
15 Academic Press, San Diego, CA (1991). Regulatory sequences include those which direct constitutive expression of a nucleotide sequence in many types of host cell and those which direct expression of the nucleotide sequence only in certain host cells (*e.g.*, tissue-specific regulatory sequences). It will be appreciated by those skilled in the art that the design of the expression vector can depend on such factors as the choice of the
20 host cell to be transformed, the level of expression of protein desired, and the like. The expression vectors of the invention can be introduced into host cells to thereby produce proteins or peptides, including fusion proteins or peptides, encoded by nucleic acids as described herein.

The recombinant expression vectors of the invention can be designed for
25 expression of a polypeptide corresponding to a marker of the invention in prokaryotic (*e.g.*, *E. coli*) or eukaryotic cells (*e.g.*, insect cells {using baculovirus expression vectors}, yeast cells or mammalian cells). Suitable host cells are discussed further in Goeddel, *supra*. Alternatively, the recombinant expression vector can be transcribed and translated *in vitro*, for example using T7 promoter regulatory sequences and T7
30 polymerase.

Expression of proteins in prokaryotes is most often carried out in *E. coli* with vectors containing constitutive or inducible promoters directing the expression of either fusion or non-fusion proteins. Fusion vectors add a number of amino acids to a protein encoded therein, usually to the amino terminus of the recombinant protein. Such fusion
5 vectors typically serve three purposes: 1) to increase expression of recombinant protein; 2) to increase the solubility of the recombinant protein; and 3) to aid in the purification of the recombinant protein by acting as a ligand in affinity purification. Often, in fusion expression vectors, a proteolytic cleavage site is introduced at the junction of the fusion moiety and the recombinant protein to enable separation of the recombinant protein
10 from the fusion moiety subsequent to purification of the fusion protein. Such enzymes, and their cognate recognition sequences, include Factor Xa, thrombin and enterokinase. Typical fusion expression vectors include pGEX (Pharmacia Biotech Inc; Smith and Johnson, 1988, *Gene* 67:31-40), pMAL (New England Biolabs, Beverly, MA) and pRIT5 (Pharmacia, Piscataway, NJ) which fuse glutathione S-transferase (GST),
15 maltose E binding protein, or protein A, respectively, to the target recombinant protein.

Examples of suitable inducible non-fusion *E. coli* expression vectors include pTrc (Amann *et al.*, 1988, *Gene* 69:301-315) and pET 11d (Studier *et al.*, p. 60-89, In *Gene Expression Technology: Methods in Enzymology* vol.185, Academic Press, San Diego, CA, 1991). Target gene expression from the pTrc vector relies on host RNA
20 polymerase transcription from a hybrid trp-lac fusion promoter. Target gene expression from the pET 11d vector relies on transcription from a T7 gn10-lac fusion promoter mediated by a co-expressed viral RNA polymerase (T7 gn1). This viral polymerase is supplied by host strains BL21(DE3) or HMS174(DE3) from a resident prophage harboring a T7 gn1 gene under the transcriptional control of the lacUV 5 promoter.

25 One strategy to maximize recombinant protein expression in *E. coli* is to express the protein in a host bacteria with an impaired capacity to proteolytically cleave the recombinant protein (Gottesman, p. 119-128, In *Gene Expression Technology: Methods in Enzymology* vol. 185, Academic Press, San Diego, CA, 1990. Another strategy is to alter the nucleic acid sequence of the nucleic acid to be inserted into an expression
30 vector so that the individual codons for each amino acid are those preferentially utilized in *E. coli* (Wada *et al.*, 1992, *Nucleic Acids Res.* 20:2111-2118). Such alteration of

- 57 -

nucleic acid sequences of the invention can be carried out by standard DNA synthesis techniques.

In another embodiment, the expression vector is a yeast expression vector. Examples of vectors for expression in yeast *S. cerevisiae* include pYepSec1 (Baldari *et al.*, 1987, *EMBO J.* 6:229-234), pMFa (Kurjan and Herskowitz, 1982, *Cell* 30:933-943), pJRY88 (Schultz *et al.*, 1987, *Gene* 54:113-123), pYES2 (Invitrogen Corporation, San Diego, CA), and pPicZ (Invitrogen Corp, San Diego, CA).

Alternatively, the expression vector is a baculovirus expression vector. Baculovirus vectors available for expression of proteins in cultured insect cells (*e.g.*, Sf 9 cells) include the pAc series (Smith *et al.*, 1983, *Mol. Cell Biol.* 3:2156-2165) and the pVL series (Lucklow and Summers, 1989, *Virology* 170:31-39).

In yet another embodiment, a nucleic acid of the invention is expressed in mammalian cells using a mammalian expression vector. Examples of mammalian expression vectors include pCDM8 (Seed, 1987, *Nature* 329:840) and pMT2PC (Kaufman *et al.*, 1987, *EMBO J.* 6:187-195). When used in mammalian cells, the expression vector's control functions are often provided by viral regulatory elements. For example, commonly used promoters are derived from polyoma, Adenovirus 2, cytomegalovirus and Simian Virus 40. For other suitable expression systems for both prokaryotic and eukaryotic cells see chapters 16 and 17 of Sambrook *et al.*, *supra*.

In another embodiment, the recombinant mammalian expression vector is capable of directing expression of the nucleic acid preferentially in a particular cell type (*e.g.*, tissue-specific regulatory elements are used to express the nucleic acid). Tissue-specific regulatory elements are known in the art. Non-limiting examples of suitable tissue-specific promoters include the albumin promoter (liver-specific; Pinkert *et al.*, 1987, *Genes Dev.* 1:268-277), lymphoid-specific promoters (Calame and Eaton, 1988, *Adv. Immunol.* 43:235-275), in particular promoters of T cell receptors (Winoto and Baltimore, 1989, *EMBO J.* 8:729-733) and immunoglobulins (Banerji *et al.*, 1983, *Cell* 33:729-740; Queen and Baltimore, 1983, *Cell* 33:741-748), neuron-specific promoters (*e.g.*, the neurofilament promoter; Byrne and Ruddell, 1989, *Proc. Natl. Acad. Sci. USA* 86:5473-5477), pancreas-specific promoters (Edlund *et al.*, 1985, *Science* 230:912-916), and mammary gland-specific promoters (*e.g.*, milk whey promoter; U.S. Patent No. 4,873,316 and European Application Publication No. 264,166). Developmentally-

- 58 -

regulated promoters are also encompassed, for example the murine hox promoters (Kessel and Gruss, 1990, *Science* 249:374-379) and the α -fetoprotein promoter (Camper and Tilghman, 1989, *Genes Dev.* 3:537-546).

The invention further provides a recombinant expression vector comprising a
5 DNA molecule of the invention cloned into the expression vector in an antisense orientation. That is, the DNA molecule is operably linked to a regulatory sequence in a manner which allows for expression (by transcription of the DNA molecule) of an RNA molecule which is antisense to the mRNA encoding a polypeptide of the invention. Regulatory sequences operably linked to a nucleic acid cloned in the antisense
10 orientation can be chosen which direct the continuous expression of the antisense RNA molecule in a variety of cell types, for instance viral promoters and/or enhancers, or regulatory sequences can be chosen which direct constitutive, tissue-specific or cell type specific expression of antisense RNA. The antisense expression vector can be in the form of a recombinant plasmid, phagemid, or attenuated virus in which antisense nucleic
15 acids are produced under the control of a high efficiency regulatory region, the activity of which can be determined by the cell type into which the vector is introduced. For a discussion of the regulation of gene expression using antisense genes see Weintraub *et al.*, 1986, *Trends in Genetics*, Vol. 1(1).

Another aspect of the invention pertains to host cells into which a recombinant
20 expression vector of the invention has been introduced. The terms "host cell" and "recombinant host cell" are used interchangeably herein. It is understood that such terms refer not only to the particular subject cell but to the progeny or potential progeny of such a cell. Because certain modifications may occur in succeeding generations due to either mutation or environmental influences, such progeny may not, in fact, be
25 identical to the parent cell, but are still included within the scope of the term as used herein.

A host cell can be any prokaryotic (*e.g.*, *E. coli*) or eukaryotic cell (*e.g.*, insect cells, yeast or mammalian cells).

Vector DNA can be introduced into prokaryotic or eukaryotic cells via
30 conventional transformation or transfection techniques. As used herein, the terms "transformation" and "transfection" are intended to refer to a variety of art-recognized techniques for introducing foreign nucleic acid into a host cell, including calcium

- 59 -

phosphate or calcium chloride co-precipitation, DEAE-dextran-mediated transfection, lipofection, or electroporation. Suitable methods for transforming or transfecting host cells can be found in Sambrook, *et al.* (*supra*), and other laboratory manuals.

For stable transfection of mammalian cells, it is known that, depending upon the expression vector and transfection technique used, only a small fraction of cells may integrate the foreign DNA into their genome. In order to identify and select these integrants, a gene that encodes a selectable marker (*e.g.*, for resistance to antibiotics) is generally introduced into the host cells along with the gene of interest. Preferred selectable markers include those which confer resistance to drugs, such as G418, hygromycin and methotrexate. Cells stably transfected with the introduced nucleic acid can be identified by drug selection (*e.g.*, cells that have incorporated the selectable marker gene will survive, while the other cells die).

A host cell of the invention, such as a prokaryotic or eukaryotic host cell in culture, can be used to produce a polypeptide corresponding to a marker of the invention. Accordingly, the invention further provides methods for producing a polypeptide corresponding to a marker of the invention using the host cells of the invention. In one embodiment, the method comprises culturing the host cell of invention (into which a recombinant expression vector encoding a polypeptide of the invention has been introduced) in a suitable medium such that the marker is produced. In another embodiment, the method further comprises isolating the marker polypeptide from the medium or the host cell.

The host cells of the invention can also be used to produce nonhuman transgenic animals. For example, in one embodiment, a host cell of the invention is a fertilized oocyte or an embryonic stem cell into which a sequences encoding a polypeptide corresponding to a marker of the invention have been introduced. Such host cells can then be used to create non-human transgenic animals in which exogenous sequences encoding a marker protein of the invention have been introduced into their genome or homologous recombinant animals in which endogenous gene(s) encoding a polypeptide corresponding to a marker of the invention sequences have been altered. Such animals are useful for studying the function and/or activity of the polypeptide corresponding to the marker and for identifying and/or evaluating modulators of polypeptide activity. As used herein, a "transgenic animal" is a non-human animal, preferably a mammal, more

- 60 -

preferably a rodent such as a rat or mouse, in which one or more of the cells of the animal includes a transgene. Other examples of transgenic animals include non-human primates, sheep, dogs, cows, goats, chickens, amphibians, etc. A transgene is exogenous DNA which is integrated into the genome of a cell from which a transgenic animal
5 develops and which remains in the genome of the mature animal, thereby directing the expression of an encoded gene product in one or more cell types or tissues of the transgenic animal. As used herein, an "homologous recombinant animal" is a non-human animal, preferably a mammal, more preferably a mouse, in which an endogenous gene has been altered by homologous recombination between the endogenous gene and
10 an exogenous DNA molecule introduced into a cell of the animal, *e.g.*, an embryonic cell of the animal, prior to development of the animal.

A transgenic animal of the invention can be created by introducing a nucleic acid encoding a polypeptide corresponding to a marker of the invention into the male pronuclei of a fertilized oocyte, *e.g.*, by microinjection, retroviral infection, and allowing
15 the oocyte to develop in a pseudopregnant female foster animal. Intronic sequences and polyadenylation signals can also be included in the transgene to increase the efficiency of expression of the transgene. A tissue-specific regulatory sequence(s) can be operably linked to the transgene to direct expression of the polypeptide of the invention to particular cells. Methods for generating transgenic animals via embryo manipulation
20 and microinjection, particularly animals such as mice, have become conventional in the art and are described, for example, in U.S. Patent Nos. 4,736,866 and 4,870,009, U.S. Patent No. 4,873,191 and in Hogan, *Manipulating the Mouse Embryo*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y., 1986. Similar methods are used for production of other transgenic animals. A transgenic founder animal can be identified
25 based upon the presence of the transgene in its genome and/or expression of mRNA encoding the transgene in tissues or cells of the animals. A transgenic founder animal can then be used to breed additional animals carrying the transgene. Moreover, transgenic animals carrying the transgene can further be bred to other transgenic animals carrying other transgenes.

30 To create an homologous recombinant animal, a vector is prepared which contains at least a portion of a gene encoding a polypeptide corresponding to a marker of the invention into which a deletion, addition or substitution has been introduced to

- 61 -

thereby alter, *e.g.*, functionally disrupt, the gene. In a preferred embodiment, the vector is designed such that, upon homologous recombination, the endogenous gene is functionally disrupted (*i.e.*, no longer encodes a functional protein; also referred to as a "knock out" vector). Alternatively, the vector can be designed such that, upon

5 homologous recombination, the endogenous gene is mutated or otherwise altered but still encodes functional protein (*e.g.*, the upstream regulatory region can be altered to thereby alter the expression of the endogenous protein). In the homologous recombination vector, the altered portion of the gene is flanked at its 5' and 3' ends by additional nucleic acid of the gene to allow for homologous recombination to occur

10 between the exogenous gene carried by the vector and an endogenous gene in an embryonic stem cell. The additional flanking nucleic acid sequences are of sufficient length for successful homologous recombination with the endogenous gene. Typically, several kilobases of flanking DNA (both at the 5' and 3' ends) are included in the vector (see, *e.g.*, Thomas and Capecchi, 1987, *Cell* 51:503 for a description of homologous

15 recombination vectors). The vector is introduced into an embryonic stem cell line (*e.g.*, by electroporation) and cells in which the introduced gene has homologously recombined with the endogenous gene are selected (see, *e.g.*, Li *et al.*, 1992, *Cell* 69:915). The selected cells are then injected into a blastocyst of an animal (*e.g.*, a mouse) to form aggregation chimeras (see, *e.g.*, Bradley, *Teratocarcinomas and*

20 *Embryonic Stem Cells: A Practical Approach*, Robertson, Ed., IRL, Oxford, 1987, pp. 113-152). A chimeric embryo can then be implanted into a suitable pseudopregnant female foster animal and the embryo brought to term. Progeny harboring the homologously recombined DNA in their germ cells can be used to breed animals in which all cells of the animal contain the homologously recombined DNA by germline

25 transmission of the transgene. Methods for constructing homologous recombination vectors and homologous recombinant animals are described further in Bradley (1991) *Current Opinion in Bio/Technology* 2:823-829 and in PCT Publication NOS. WO 90/11354, WO 91/01140, WO 92/0968, and WO 93/04169.

In another embodiment, transgenic non-human animals can be produced which

30 contain selected systems which allow for regulated expression of the transgene. One example of such a system is the *cre/loxP* recombinase system of bacteriophage P1. For a description of the *cre/loxP* recombinase system, see, *e.g.*, Lakso *et al.* (1992) *Proc.*

- 62 -

Natl. Acad. Sci. USA 89:6232-6236. Another example of a recombinase system is the FLP recombinase system of *Saccharomyces cerevisiae* (O'Gorman *et al.*, 1991, *Science* 251:1351-1355). If a *cre/loxP* recombinase system is used to regulate expression of the transgene, animals containing transgenes encoding both the *Cre* recombinase and a
5 selected protein are required. Such animals can be provided through the construction of "double" transgenic animals, *e.g.*, by mating two transgenic animals, one containing a transgene encoding a selected protein and the other containing a transgene encoding a recombinase.

Clones of the non-human transgenic animals described herein can also be
10 produced according to the methods described in Wilmut *et al.* (1997) *Nature* 385:810-813 and PCT Publication NOS. WO 97/07668 and WO 97/07669.

IV. Pharmaceutical Compositions

The nucleic acid molecules, polypeptides, and antibodies (also referred to herein
15 as "active compounds") corresponding to a marker of the invention can be incorporated into pharmaceutical compositions suitable for administration. Such compositions typically comprise the nucleic acid molecule, protein, or antibody and a pharmaceutically acceptable carrier. As used herein the language "pharmaceutically acceptable carrier" is intended to include any and all solvents, dispersion media,
20 coatings, antibacterial and antifungal agents, isotonic and absorption delaying agents, and the like, compatible with pharmaceutical administration. The use of such media and agents for pharmaceutically active substances is well known in the art. Except insofar as any conventional media or agent is incompatible with the active compound, use thereof in the compositions is contemplated. Supplementary active compounds can also be
25 incorporated into the compositions.

The invention includes methods for preparing pharmaceutical compositions for modulating the expression or activity of a polypeptide or nucleic acid corresponding to a marker of the invention. Such methods comprise formulating a pharmaceutically acceptable carrier with an agent which modulates expression or activity of a polypeptide
30 or nucleic acid corresponding to a marker of the invention. Such compositions can further include additional active agents. Thus, the invention further includes methods for preparing a pharmaceutical composition by formulating a pharmaceutically

- 63 -

acceptable carrier with an agent which modulates expression or activity of a polypeptide or nucleic acid corresponding to a marker of the invention and one or more additional active compounds.

The invention also provides methods (also referred to herein as "screening assays") for identifying modulators, *i.e.*, candidate or test compounds or agents (*e.g.*, peptides, peptidomimetics, peptoids, small molecules or other drugs) which (a) bind to the marker, or (b) have a modulatory (*e.g.*, stimulatory or inhibitory) effect on the activity of the marker or, more specifically, (c) have a modulatory effect on the interactions of the marker with one or more of its natural substrates (*e.g.*, peptide, protein, hormone, co-factor, or nucleic acid), or (d) have a modulatory effect on the expression of the marker. Such assays typically comprise a reaction between the marker and one or more assay components. The other components may be either the test compound itself, or a combination of test compound and a natural binding partner of the marker.

The test compounds of the present invention may be obtained from any available source, including systematic libraries of natural and/or synthetic compounds. Test compounds may also be obtained by any of the numerous approaches in combinatorial library methods known in the art, including: biological libraries; peptoid libraries (libraries of molecules having the functionalities of peptides, but with a novel, non-peptide backbone which are resistant to enzymatic degradation but which nevertheless remain bioactive; see, *e.g.*, Zuckermann *et al.*, 1994, *J. Med. Chem.* 37:2678-85); spatially addressable parallel solid phase or solution phase libraries; synthetic library methods requiring deconvolution; the 'one-bead one-compound' library method; and synthetic library methods using affinity chromatography selection. The biological library and peptoid library approaches are limited to peptide libraries, while the other four approaches are applicable to peptide, non-peptide oligomer or small molecule libraries of compounds (Lam, 1997, *Anticancer Drug Des.* 12:145).

Examples of methods for the synthesis of molecular libraries can be found in the art, for example in: DeWitt *et al.* (1993) *Proc. Natl. Acad. Sci. U.S.A.* 90:6909; Erb *et al.* (1994) *Proc. Natl. Acad. Sci. USA* 91:11422; Zuckermann *et al.* (1994). *J. Med. Chem.* 37:2678; Cho *et al.* (1993) *Science* 261:1303; Carrell *et al.* (1994) *Angew. Chem.*

Int. Ed. Engl. 33:2059; Carell *et al.* (1994) *Angew. Chem. Int. Ed. Engl.* 33:2061; and in Gallop *et al.* (1994) *J. Med. Chem.* 37:1233.

Libraries of compounds may be presented in solution (*e.g.*, Houghten, 1992, *Biotechniques* 13:412-421), or on beads (Lam, 1991, *Nature* 354:82-84), chips (Fodor, 5 1993, *Nature* 364:555-556), bacteria and/or spores, (Ladner, USP 5,223,409), plasmids (Cull *et al.*, 1992, *Proc Natl Acad Sci USA* 89:1865-1869) or on phage (Scott and Smith, 1990, *Science* 249:386-390; Devlin, 1990, *Science* 249:404-406; Cwirla *et al.*, 1990, *Proc. Natl. Acad. Sci.* 87:6378-6382; Felici, 1991, *J. Mol. Biol.* 222:301-310; Ladner, *supra.*).

10 In one embodiment, the invention provides assays for screening candidate or test compounds which are substrates of a marker or biologically active portion thereof. In another embodiment, the invention provides assays for screening candidate or test compounds which bind to a marker or biologically active portion thereof. Determining the ability of the test compound to directly bind to a marker can be accomplished, for 15 example, by coupling the compound with a radioisotope or enzymatic label such that binding of the compound to the marker can be determined by detecting the labeled marker compound in a complex. For example, compounds (*e.g.*, marker substrates) can be labeled with ¹²⁵I, ³⁵S, ¹⁴C, or ³H, either directly or indirectly, and the radioisotope detected by direct counting of radioemission or by scintillation counting. Alternatively, 20 assay components can be enzymatically labeled with, for example, horseradish peroxidase, alkaline phosphatase, or luciferase, and the enzymatic label detected by determination of conversion of an appropriate substrate to product.

In another embodiment, the invention provides assays for screening candidate or test compounds which modulate the activity of a marker or a biologically active portion 25 thereof. In all likelihood, the marker can, *in vivo*, interact with one or more molecules, such as but not limited to, peptides, proteins, hormones, cofactors and nucleic acids. For the purposes of this discussion, such cellular and extracellular molecules are referred to herein as "binding partners" or marker "substrate".

One necessary embodiment of the invention in order to facilitate such screening 30 is the use of the marker to identify its natural *in vivo* binding partners. There are many ways to accomplish this which are known to one skilled in the art. One example is the use of the marker protein as "bait protein" in a two-hybrid assay or three-hybrid assay

- 65 -

(see, e.g., U.S. Patent No. 5,283,317; Zervos *et al*, 1993, *Cell* 72:223-232; Madura *et al*, 1993, *J. Biol. Chem.* 268:12046-12054; Bartel *et al*, 1993, *Biotechniques* 14:920-924; Iwabuchi *et al*, 1993 *Oncogene* 8:1693-1696; Brent WO94/10300) in order to identify other proteins which bind to or interact with the marker (binding partners) and,

- 5 therefore, are possibly involved in the natural function of the marker. Such marker binding partners are also likely to be involved in the propagation of signals by the marker or downstream elements of a marker-mediated signaling pathway. Alternatively, such marker binding partners may also be found to be inhibitors of the marker.

- The two-hybrid system is based on the modular nature of most transcription
- 10 factors, which consist of separable DNA-binding and activation domains. Briefly, the assay utilizes two different DNA constructs. In one construct, the gene that encodes a marker protein fused to a gene encoding the DNA binding domain of a known transcription factor (e.g., GAL-4). In the other construct, a DNA sequence, from a library of DNA sequences, that encodes an unidentified protein ("prey" or "sample") is
- 15 fused to a gene that codes for the activation domain of the known transcription factor. If the "bait" and the "prey" proteins are able to interact, *in vivo*, forming a marker-dependent complex, the DNA-binding and activation domains of the transcription factor are brought into close proximity. This proximity allows transcription of a reporter gene (e.g., LacZ) which is operably linked to a transcriptional regulatory site responsive to
- 20 the transcription factor. Expression of the reporter gene can be readily detected and cell colonies containing the functional transcription factor can be isolated and used to obtain the cloned gene which encodes the protein which interacts with the marker protein.

- In a further embodiment, assays may be devised through the use of the invention for the purpose of identifying compounds which modulate (e.g., affect either positively
- 25 or negatively) interactions between a marker and its substrates and/or binding partners. Such compounds can include, but are not limited to, molecules such as antibodies, peptides, hormones, oligonucleotides, nucleic acids, and analogs thereof. Such compounds may also be obtained from any available source, including systematic libraries of natural and/or synthetic compounds. The preferred assay components for use
- 30 in this embodiment is an ovarian cancer marker identified herein, the known binding partner and/or substrate of same, and the test compound. Test compounds can be supplied from any source.

- 66 -

The basic principle of the assay systems used to identify compounds that interfere with the interaction between the marker and its binding partner involves preparing a reaction mixture containing the marker and its binding partner under conditions and for a time sufficient to allow the two products to interact and bind, thus forming a complex. In order to test an agent for inhibitory activity, the reaction mixture is prepared in the presence and absence of the test compound. The test compound can be initially included in the reaction mixture, or can be added at a time subsequent to the addition of the marker and its binding partner. Control reaction mixtures are incubated without the test compound or with a placebo. The formation of any complexes between the marker and its binding partner is then detected. The formation of a complex in the control reaction, but less or no such formation in the reaction mixture containing the test compound, indicates that the compound interferes with the interaction of the marker and its binding partner. Conversely, the formation of more complex in the presence of compound than in the control reaction indicates that the compound may enhance interaction of the marker and its binding partner.

The assay for compounds that interfere with the interaction of the marker with its binding partner may be conducted in a heterogeneous or homogeneous format. Heterogeneous assays involve anchoring either the marker or its binding partner onto a solid phase and detecting complexes anchored to the solid phase at the end of the reaction. In homogeneous assays, the entire reaction is carried out in a liquid phase. In either approach, the order of addition of reactants can be varied to obtain different information about the compounds being tested. For example, test compounds that interfere with the interaction between the markers and the binding partners (*e.g.*, by competition) can be identified by conducting the reaction in the presence of the test substance, *i.e.*, by adding the test substance to the reaction mixture prior to or simultaneously with the marker and its interactive binding partner. Alternatively, test compounds that disrupt preformed complexes, *e.g.*, compounds with higher binding constants that displace one of the components from the complex, can be tested by adding the test compound to the reaction mixture after complexes have been formed. The various formats are briefly described below.

- 67 -

In a heterogeneous assay system, either the marker or its binding partner is anchored onto a solid surface or matrix, while the other corresponding non-anchored component may be labeled, either directly or indirectly. In practice, microtitre plates are often utilized for this approach. The anchored species can be immobilized by a number of methods, either non-covalent or covalent, that are typically well known to one who practices the art. Non-covalent attachment can often be accomplished simply by coating the solid surface with a solution of the marker or its binding partner and drying. Alternatively, an immobilized antibody specific for the assay component to be anchored can be used for this purpose. Such surfaces can often be prepared in advance and stored.

10 In related embodiments, a fusion protein can be provided which adds a domain that allows one or both of the assay components to be anchored to a matrix. For example, glutathione-S-transferase/marker fusion proteins or glutathione-S-transferase/binding partner can be adsorbed onto glutathione sepharose beads (Sigma Chemical, St. Louis, MO) or glutathione derivatized microtiter plates, which are then
15 combined with the test compound or the test compound and either the non-adsorbed marker or its binding partner, and the mixture incubated under conditions conducive to complex formation (*e.g.*, physiological conditions). Following incubation, the beads or microtiter plate wells are washed to remove any unbound assay components, the immobilized complex assessed either directly or indirectly, for example, as described
20 above. Alternatively, the complexes can be dissociated from the matrix, and the level of marker binding or activity determined using standard techniques.

Other techniques for immobilizing proteins on matrices can also be used in the screening assays of the invention. For example, either a marker or a marker binding partner can be immobilized utilizing conjugation of biotin and streptavidin. Biotinylated
25 marker protein or target molecules can be prepared from biotin-NHS (N-hydroxy-succinimide) using techniques known in the art (*e.g.*, biotinylation kit, Pierce Chemicals, Rockford, IL), and immobilized in the wells of streptavidin-coated 96 well plates (Pierce Chemical). In certain embodiments, the protein-immobilized surfaces can be prepared in advance and stored.

30 In order to conduct the assay, the corresponding partner of the immobilized assay component is exposed to the coated surface with or without the test compound. After the reaction is complete, unreacted assay components are removed (*e.g.*, by washing)

- 68 -

and any complexes formed will remain immobilized on the solid surface. The detection of complexes anchored on the solid surface can be accomplished in a number of ways. Where the non-immobilized component is pre-labeled, the detection of label immobilized on the surface indicates that complexes were formed. Where the non-immobilized component is not pre-labeled, an indirect label can be used to detect complexes anchored on the surface; *e.g.*, using a labeled antibody specific for the initially non-immobilized species (the antibody, in turn, can be directly labeled or indirectly labeled with, *e.g.*, a labeled anti-Ig antibody). Depending upon the order of addition of reaction components, test compounds which modulate (inhibit or enhance) complex formation or which disrupt preformed complexes can be detected.

In an alternate embodiment of the invention, a homogeneous assay may be used. This is typically a reaction, analogous to those mentioned above, which is conducted in a liquid phase in the presence or absence of the test compound. The formed complexes are then separated from unreacted components, and the amount of complex formed is determined. As mentioned for heterogeneous assay systems, the order of addition of reactants to the liquid phase can yield information about which test compounds modulate (inhibit or enhance) complex formation and which disrupt preformed complexes.

In such a homogeneous assay, the reaction products may be separated from unreacted assay components by any of a number of standard techniques, including but not limited to: differential centrifugation, chromatography, electrophoresis and immunoprecipitation. In differential centrifugation, complexes of molecules may be separated from uncomplexed molecules through a series of centrifugal steps, due to the different sedimentation equilibria of complexes based on their different sizes and densities (see, for example, Rivas, G., and Minton, A.P., *Trends Biochem Sci* 1993 Aug;18(8):284-7). Standard chromatographic techniques may also be utilized to separate complexed molecules from uncomplexed ones. For example, gel filtration chromatography separates molecules based on size, and through the utilization of an appropriate gel filtration resin in a column format, for example, the relatively larger complex may be separated from the relatively smaller uncomplexed components. Similarly, the relatively different charge properties of the complex as compared to the uncomplexed molecules may be exploited to differentially separate the complex from

the remaining individual reactants, for example through the use of ion-exchange chromatography resins. Such resins and chromatographic techniques are well known to one skilled in the art (see, *e.g.*, Heegaard, 1998, *J Mol. Recognit.* 11:141-148; Hage and Tweed, 1997, *J. Chromatogr. B. Biomed. Sci. Appl.*, 699:499-525). Gel electrophoresis
5 may also be employed to separate complexed molecules from unbound species (see, *e.g.*, Ausubel *et al* (eds.), In: Current Protocols in Molecular Biology, J. Wiley & Sons, New York. 1999). In this technique, protein or nucleic acid complexes are separated based on size or charge, for example. In order to maintain the binding interaction during the electrophoretic process, nondenaturing gels in the absence of reducing agent are
10 typically preferred, but conditions appropriate to the particular interactants will be well known to one skilled in the art. Immunoprecipitation is another common technique utilized for the isolation of a protein-protein complex from solution (see, *e.g.*, Ausubel *et al* (eds.), In: Current Protocols in Molecular Biology, J. Wiley & Sons, New York. 1999). In this technique, all proteins binding to an antibody specific to one of the
15 binding molecules are precipitated from solution by conjugating the antibody to a polymer bead that may be readily collected by centrifugation. The bound assay components are released from the beads (through a specific proteolysis event or other technique well known in the art which will not disturb the protein-protein interaction in the complex), and a second immunoprecipitation step is performed, this time utilizing
20 antibodies specific for the correspondingly different interacting assay component. In this manner, only formed complexes should remain attached to the beads. Variations in complex formation in both the presence and the absence of a test compound can be compared, thus offering information about the ability of the compound to modulate interactions between the marker and its binding partner.

25 Also within the scope of the present invention are methods for direct detection of interactions between the marker and its natural binding partner and/or a test compound in a homogeneous or heterogeneous assay system without further sample manipulation. For example, the technique of fluorescence energy transfer may be utilized (see, *e.g.*, Lakowicz *et al*, U.S. Patent No. 5,631,169; Stavrianopoulos *et al*, U.S. Patent No.
30 4,868,103). Generally, this technique involves the addition of a fluorophore label on a first 'donor' molecule (*e.g.*, marker or test compound) such that its emitted fluorescent energy will be absorbed by a fluorescent label on a second, 'acceptor' molecule (*e.g.*,

- 70 -

marker or test compound), which in turn is able to fluoresce due to the absorbed energy. Alternately, the 'donor' protein molecule may simply utilize the natural fluorescent energy of tryptophan residues. Labels are chosen that emit different wavelengths of light, such that the 'acceptor' molecule label may be differentiated from that of the

5 'donor'. Since the efficiency of energy transfer between the labels is related to the distance separating the molecules, spatial relationships between the molecules can be assessed. In a situation in which binding occurs between the molecules, the fluorescent emission of the 'acceptor' molecule label in the assay should be maximal. An FET binding event can be conveniently measured through standard fluorometric detection

10 means well known in the art (e.g., using a fluorimeter). A test substance which either enhances or hinders participation of one of the species in the preformed complex will result in the generation of a signal variant to that of background. In this way, test substances that modulate interactions between a marker and its binding partner can be identified in controlled assays.

15 In another embodiment, modulators of marker expression are identified in a method wherein a cell is contacted with a candidate compound and the expression of mRNA or protein, corresponding to a marker in the cell, is determined. The level of expression of mRNA or protein in the presence of the candidate compound is compared to the level of expression of mRNA or protein in the absence of the candidate

20 compound. The candidate compound can then be identified as a modulator of marker expression based on this comparison. For example, when expression of marker mRNA or protein is greater (statistically significantly greater) in the presence of the candidate compound than in its absence, the candidate compound is identified as a stimulator of marker mRNA or protein expression. Conversely, when expression of marker mRNA

25 or protein is less (statistically significantly less) in the presence of the candidate compound than in its absence, the candidate compound is identified as an inhibitor of marker mRNA or protein expression. The level of marker mRNA or protein expression in the cells can be determined by methods described herein for detecting marker mRNA or protein.

30 In another aspect, the invention pertains to a combination of two or more of the assays described herein. For example, a modulating agent can be identified using a cell-based or a cell free assay, and the ability of the agent to modulate the activity of a

- 71 -

marker protein can be further confirmed *in vivo*, *e.g.*, in a whole animal model for cellular transformation and/or tumorigenesis.

This invention further pertains to novel agents identified by the above-described screening assays. Accordingly, it is within the scope of this invention to further use an agent identified as described herein in an appropriate animal model. For example, an agent identified as described herein (*e.g.*, an marker modulating agent, an antisense marker nucleic acid molecule, an marker-specific antibody, or an marker-binding partner) can be used in an animal model to determine the efficacy, toxicity, or side effects of treatment with such an agent. Alternatively, an agent identified as described herein can be used in an animal model to determine the mechanism of action of such an agent. Furthermore, this invention pertains to uses of novel agents identified by the above-described screening assays for treatments as described herein.

It is understood that appropriate doses of small molecule agents and protein or polypeptide agents depends upon a number of factors within the knowledge of the ordinarily skilled physician, veterinarian, or researcher. The dose(s) of these agents will vary, for example, depending upon the identity, size, and condition of the subject or sample being treated, further depending upon the route by which the composition is to be administered, if applicable, and the effect which the practitioner desires the agent to have upon the nucleic acid or polypeptide of the invention. Exemplary doses of a small molecule include milligram or microgram amounts per kilogram of subject or sample weight (*e.g.* about 1 microgram per kilogram to about 500 milligrams per kilogram, about 100 micrograms per kilogram to about 5 milligrams per kilogram, or about 1 microgram per kilogram to about 50 micrograms per kilogram). Exemplary doses of a protein or polypeptide include gram, milligram or microgram amounts per kilogram of subject or sample weight (*e.g.* about 1 microgram per kilogram to about 5 grams per kilogram, about 100 micrograms per kilogram to about 500 milligrams per kilogram, or about 1 milligram per kilogram to about 50 milligrams per kilogram). It is furthermore understood that appropriate doses of one of these agents depend upon the potency of the agent with respect to the expression or activity to be modulated. Such appropriate doses can be determined using the assays described herein. When one or more of these agents is to be administered to an animal (*e.g.* a human) in order to modulate expression or activity of a polypeptide or nucleic acid of the invention, a physician, veterinarian, or

- 72 -

researcher can, for example, prescribe a relatively low dose at first, subsequently increasing the dose until an appropriate response is obtained. In addition, it is understood that the specific dose level for any particular animal subject will depend upon a variety of factors including the activity of the specific agent employed, the age, body weight, general health, gender, and diet of the subject, the time of administration, the route of administration, the rate of excretion, any drug combination, and the degree of expression or activity to be modulated.

A pharmaceutical composition of the invention is formulated to be compatible with its intended route of administration. Examples of routes of administration include parenteral, *e.g.*, intravenous, intradermal, subcutaneous, oral (*e.g.*, inhalation), transdermal (topical), transmucosal, and rectal administration. Solutions or suspensions used for parenteral, intradermal, or subcutaneous application can include the following components: a sterile diluent such as water for injection, saline solution, fixed oils, polyethylene glycols, glycerine, propylene glycol or other synthetic solvents; antibacterial agents such as benzyl alcohol or methyl parabens; antioxidants such as ascorbic acid or sodium bisulfite; chelating agents such as ethylenediamine-tetraacetic acid; buffers such as acetates, citrates or phosphates and agents for the adjustment of tonicity such as sodium chloride or dextrose. pH can be adjusted with acids or bases, such as hydrochloric acid or sodium hydroxide. The parenteral preparation can be enclosed in ampules, disposable syringes or multiple dose vials made of glass or plastic.

Pharmaceutical compositions suitable for injectable use include sterile aqueous solutions (where water soluble) or dispersions and sterile powders for the extemporaneous preparation of sterile injectable solutions or dispersions. For intravenous administration, suitable carriers include physiological saline, bacteriostatic water, Cremophor EL (BASF; Parsippany, NJ) or phosphate buffered saline (PBS). In all cases, the composition must be sterile and should be fluid to the extent that easy syringability exists. It must be stable under the conditions of manufacture and storage and must be preserved against the contaminating action of microorganisms such as bacteria and fungi. The carrier can be a solvent or dispersion medium containing, for example, water, ethanol, polyol (for example, glycerol, propylene glycol, and liquid polyethylene glycol, and the like), and suitable mixtures thereof. The proper fluidity can be maintained, for example, by the use of a coating such as lecithin, by the maintenance

- 73 -

of the required particle size in the case of dispersion and by the use of surfactants.

Prevention of the action of microorganisms can be achieved by various antibacterial and antifungal agents, for example, parabens, chlorobutanol, phenol, ascorbic acid, thimerosal, and the like. In many cases, it will be preferable to include isotonic agents, for example, sugars, polyalcohols such as mannitol, sorbitol, or sodium chloride in the composition. Prolonged absorption of the injectable compositions can be brought about by including in the composition an agent which delays absorption, for example, aluminum monostearate and gelatin.

Sterile injectable solutions can be prepared by incorporating the active compound (*e.g.*, a polypeptide or antibody) in the required amount in an appropriate solvent with one or a combination of ingredients enumerated above, as required, followed by filtered sterilization. Generally, dispersions are prepared by incorporating the active compound into a sterile vehicle which contains a basic dispersion medium, and then incorporating the required other ingredients from those enumerated above. In the case of sterile powders for the preparation of sterile injectable solutions, the preferred methods of preparation are vacuum drying and freeze-drying which yields a powder of the active ingredient plus any additional desired ingredient from a previously sterile-filtered solution thereof.

Oral compositions generally include an inert diluent or an edible carrier. They can be enclosed in gelatin capsules or compressed into tablets. For the purpose of oral therapeutic administration, the active compound can be incorporated with excipients and used in the form of tablets, troches, or capsules. Oral compositions can also be prepared using a fluid carrier for use as a mouthwash, wherein the compound in the fluid carrier is applied orally and swished and expectorated or swallowed.

Pharmaceutically compatible binding agents, and/or adjuvant materials can be included as part of the composition. The tablets, pills, capsules, troches, and the like can contain any of the following ingredients, or compounds of a similar nature: a binder such as microcrystalline cellulose, gum tragacanth or gelatin; an excipient such as starch or lactose, a disintegrating agent such as alginic acid, Primogel, or corn starch; a lubricant such as magnesium stearate or Sterotes; a glidant such as colloidal silicon dioxide; a sweetening agent such as sucrose or saccharin; or a flavoring agent such as peppermint, methyl salicylate, or orange flavoring.

- 74 -

For administration by inhalation, the compounds are delivered in the form of an aerosol spray from a pressurized container or dispenser which contains a suitable propellant, *e.g.*, a gas such as carbon dioxide, or a nebulizer.

Systemic administration can also be by transmucosal or transdermal means. For
5 transmucosal or transdermal administration, penetrants appropriate to the barrier to be permeated are used in the formulation. Such penetrants are generally known in the art, and include, for example, for transmucosal administration, detergents, bile salts, and fusidic acid derivatives. Transmucosal administration can be accomplished through the use of nasal sprays or suppositories. For transdermal administration, the active
10 compounds are formulated into ointments, salves, gels, or creams as generally known in the art.

The compounds can also be prepared in the form of suppositories (*e.g.*, with conventional suppository bases such as cocoa butter and other glycerides) or retention enemas for rectal delivery.

15 In one embodiment, the active compounds are prepared with carriers that will protect the compound against rapid elimination from the body, such as a controlled release formulation, including implants and microencapsulated delivery systems. Biodegradable, biocompatible polymers can be used, such as ethylene vinyl acetate, polyanhydrides, polyglycolic acid, collagen, polyorthoesters, and polylactic acid.
20 Methods for preparation of such formulations will be apparent to those skilled in the art. The materials can also be obtained commercially from Alza Corporation and Nova Pharmaceuticals, Inc. Liposomal suspensions (including liposomes having monoclonal antibodies incorporated therein or thereon) can also be used as pharmaceutically acceptable carriers. These can be prepared according to methods known to those skilled
25 in the art, for example, as described in U.S. Patent No. 4,522,811.

It is especially advantageous to formulate oral or parenteral compositions in dosage unit form for ease of administration and uniformity of dosage. Dosage unit form as used herein refers to physically discrete units suited as unitary dosages for the subject to be treated; each unit containing a predetermined quantity of active compound
30 calculated to produce the desired therapeutic effect in association with the required pharmaceutical carrier. The specification for the dosage unit forms of the invention are dictated by and directly dependent on the unique characteristics of the active compound

- 75 -

and the particular therapeutic effect to be achieved, and the limitations inherent in the art of compounding such an active compound for the treatment of individuals.

For antibodies, the preferred dosage is 0.1 mg/kg to 100 mg/kg of body weight (generally 10 mg/kg to 20 mg/kg). If the antibody is to act in the brain, a dosage of 50 mg/kg to 100 mg/kg is usually appropriate. Generally, partially human antibodies and fully human antibodies have a longer half-life within the human body than other antibodies. Accordingly, lower dosages and less frequent administration is often possible. Modifications such as lipidation can be used to stabilize antibodies and to enhance uptake and tissue penetration (e.g., into the ovarian epithelium). A method for lipidation of antibodies is described by Cruikshank *et al.* (1997) *J. Acquired Immune Deficiency Syndromes and Human Retrovirology* 14:193.

The nucleic acid molecules corresponding to a marker of the invention can be inserted into vectors and used as gene therapy vectors. Gene therapy vectors can be delivered to a subject by, for example, intravenous injection, local administration (U.S. Patent 5,328,470), or by stereotactic injection (see, e.g., Chen *et al.*, 1994, *Proc. Natl. Acad. Sci. USA* 91:3054-3057). The pharmaceutical preparation of the gene therapy vector can include the gene therapy vector in an acceptable diluent, or can comprise a slow release matrix in which the gene delivery vehicle is imbedded. Alternatively, where the complete gene delivery vector can be produced intact from recombinant cells, e.g. retroviral vectors, the pharmaceutical preparation can include one or more cells which produce the gene delivery system.

The pharmaceutical compositions can be included in a container, pack, or dispenser together with instructions for administration.

V. Predictive Medicine

The present invention pertains to the field of predictive medicine in which diagnostic assays, prognostic assays, pharmacogenomics, and monitoring clinical trails are used for prognostic (predictive) purposes to thereby treat an individual prophylactically. Accordingly, one aspect of the present invention relates to diagnostic assays for determining the level of expression of polypeptides or nucleic acids corresponding to one or more markers of the invention, in order to determine whether an individual is at risk of developing ovarian cancer. Such assays can be used for

- 76 -

prognostic or predictive purposes to thereby prophylactically treat an individual prior to the onset of the cancer.

Yet another aspect of the invention pertains to monitoring the influence of agents (e.g., drugs or other compounds administered either to inhibit ovarian cancer or to treat
5 or prevent any other disorder {i.e. in order to understand any ovarian carcinogenic effects that such treatment may have}) on the expression or activity of a marker of the invention in clinical trials. These and other agents are described in further detail in the following sections.

10 A. Diagnostic Assays

An exemplary method for detecting the presence or absence of a polypeptide or nucleic acid corresponding to a marker of the invention in a biological sample involves obtaining a biological sample (e.g. an ovary-associated body fluid) from a test subject and contacting the biological sample with a compound or an agent capable of detecting
15 the polypeptide or nucleic acid (e.g., mRNA, genomic DNA, or cDNA). The detection methods of the invention can thus be used to detect mRNA, protein, cDNA, or genomic DNA, for example, in a biological sample *in vitro* as well as *in vivo*. For example, *in vitro* techniques for detection of mRNA include Northern hybridizations and *in situ* hybridizations. *In vitro* techniques for detection of a polypeptide corresponding to a
20 marker of the invention include enzyme linked immunosorbent assays (ELISAs), Western blots, immunoprecipitations and immunofluorescence. *In vitro* techniques for detection of genomic DNA include Southern hybridizations. Furthermore, *in vivo* techniques for detection of a polypeptide corresponding to a marker of the invention include introducing into a subject a labeled antibody directed against the polypeptide.
25 For example, the antibody can be labeled with a radioactive marker whose presence and location in a subject can be detected by standard imaging techniques.

A general principle of such diagnostic and prognostic assays involves preparing a sample or reaction mixture that may contain a marker, and a probe, under appropriate conditions and for a time sufficient to allow the marker and probe to interact and bind,
30 thus forming a complex that can be removed and/or detected in the reaction mixture. These assays can be conducted in a variety of ways.

- 77 -

For example, one method to conduct such an assay would involve anchoring the marker or probe onto a solid phase support, also referred to as a substrate, and detecting target marker/probe complexes anchored on the solid phase at the end of the reaction.

In one embodiment of such a method, a sample from a subject, which is to be assayed for presence and/or concentration of marker, can be anchored onto a carrier or solid phase support. In another embodiment, the reverse situation is possible, in which the probe can be anchored to a solid phase and a sample from a subject can be allowed to react as an unanchored component of the assay.

There are many established methods for anchoring assay components to a solid phase. These include, without limitation, marker or probe molecules which are immobilized through conjugation of biotin and streptavidin. Such biotinylated assay components can be prepared from biotin-NHS (N-hydroxy-succinimide) using techniques known in the art (*e.g.*, biotinylation kit, Pierce Chemicals, Rockford, IL), and immobilized in the wells of streptavidin-coated 96 well plates (Pierce Chemical). In certain embodiments, the surfaces with immobilized assay components can be prepared in advance and stored.

Other suitable carriers or solid phase supports for such assays include any material capable of binding the class of molecule to which the marker or probe belongs. Well-known supports or carriers include, but are not limited to, glass, polystyrene, nylon, polypropylene, nylon, polyethylene, dextran, amylases, natural and modified celluloses, polyacrylamides, gabbros, and magnetite.

In order to conduct assays with the above mentioned approaches, the non-immobilized component is added to the solid phase upon which the second component is anchored. After the reaction is complete, uncomplexed components may be removed (*e.g.*, by washing) under conditions such that any complexes formed will remain immobilized upon the solid phase. The detection of marker/probe complexes anchored to the solid phase can be accomplished in a number of methods outlined herein.

In a preferred embodiment, the probe, when it is the unanchored assay component, can be labeled for the purpose of detection and readout of the assay, either directly or indirectly, with detectable labels discussed herein and which are well-known to one skilled in the art.

- 78 -

It is also possible to directly detect marker/probe complex formation without further manipulation or labeling of either component (marker or probe), for example by utilizing the technique of fluorescence energy transfer (see, for example, Lakowicz *et al.*, U.S. Patent No. 5,631,169; Stavrianopoulos, *et al.*, U.S. Patent No. 4,868,103). A fluorophore label on the first, 'donor' molecule is selected such that, upon excitation with incident light of appropriate wavelength, its emitted fluorescent energy will be absorbed by a fluorescent label on a second 'acceptor' molecule, which in turn is able to fluoresce due to the absorbed energy. Alternately, the 'donor' protein molecule may simply utilize the natural fluorescent energy of tryptophan residues. Labels are chosen that emit different wavelengths of light, such that the 'acceptor' molecule label may be differentiated from that of the 'donor'. Since the efficiency of energy transfer between the labels is related to the distance separating the molecules, spatial relationships between the molecules can be assessed. In a situation in which binding occurs between the molecules, the fluorescent emission of the 'acceptor' molecule label in the assay should be maximal. An FET binding event can be conveniently measured through standard fluorometric detection means well known in the art (*e.g.*, using a fluorimeter).

In another embodiment, determination of the ability of a probe to recognize a marker can be accomplished without labeling either assay component (probe or marker) by utilizing a technology such as real-time Biomolecular Interaction Analysis (BIA) (see, *e.g.*, Sjolander, S. and Urbaniczky, C., 1991, *Anal. Chem.* 63:2338-2345 and Szabo *et al.*, 1995, *Curr. Opin. Struct. Biol.* 5:699-705). As used herein, "BIA" or "surface plasmon resonance" is a technology for studying biospecific interactions in real time, without labeling any of the interactants (*e.g.*, BIAcore). Changes in the mass at the binding surface (indicative of a binding event) result in alterations of the refractive index of light near the surface (the optical phenomenon of surface plasmon resonance (SPR)), resulting in a detectable signal which can be used as an indication of real-time reactions between biological molecules.

Alternatively, in another embodiment, analogous diagnostic and prognostic assays can be conducted with marker and probe as solutes in a liquid phase. In such an assay, the complexed marker and probe are separated from uncomplexed components by any of a number of standard techniques, including but not limited to: differential centrifugation, chromatography, electrophoresis and immunoprecipitation. In

- 79 -

differential centrifugation, marker/probe complexes may be separated from uncomplexed assay components through a series of centrifugal steps, due to the different sedimentation equilibria of complexes based on their different sizes and densities (see, for example, Rivas, G., and Minton, A.P., 1993, *Trends Biochem Sci.* 18(8):284-7).

- 5 Standard chromatographic techniques may also be utilized to separate complexed molecules from uncomplexed ones. For example, gel filtration chromatography separates molecules based on size, and through the utilization of an appropriate gel filtration resin in a column format, for example, the relatively larger complex may be separated from the relatively smaller uncomplexed components. Similarly, the
- 10 relatively different charge properties of the marker/probe complex as compared to the uncomplexed components may be exploited to differentiate the complex from uncomplexed components, for example through the utilization of ion-exchange chromatography resins. Such resins and chromatographic techniques are well known to one skilled in the art (see, *e.g.*, Heegaard, N.H., 1998, *J. Mol. Recognit.* Winter 11(1-6):141-8; Hage, D.S., and Tweed, S.A. *J Chromatogr B Biomed Sci Appl* 1997 Oct 15 10;699(1-2):499-525). Gel electrophoresis may also be employed to separate complexed assay components from unbound components (see, *e.g.*, Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, New York, 1987-1999). In this technique, protein or nucleic acid complexes are separated based on size or
- 20 charge, for example. In order to maintain the binding interaction during the electrophoretic process, non-denaturing gel matrix materials and conditions in the absence of reducing agent are typically preferred. Appropriate conditions to the particular assay and components thereof will be well known to one skilled in the art.

- In a particular embodiment, the level of mRNA corresponding to the marker can
- 25 be determined both by *in situ* and by *in vitro* formats in a biological sample using methods known in the art. The term "biological sample" is intended to include tissues, cells, biological fluids and isolates thereof, isolated from a subject, as well as tissues, cells and fluids present within a subject. Many expression detection methods use isolated RNA. For *in vitro* methods, any RNA isolation technique that does not select
- 30 against the isolation of mRNA can be utilized for the purification of RNA from ovarian cells (see, *e.g.*, Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, New York 1987-1999). Additionally, large numbers of tissue samples can

readily be processed using techniques well known to those of skill in the art, such as, for example, the single-step RNA isolation process of Chomczynski (1989, U.S. Patent No. 4,843,155).

The isolated mRNA can be used in hybridization or amplification assays that
5 include, but are not limited to, Southern or Northern analyses, polymerase chain reaction analyses and probe arrays. One preferred diagnostic method for the detection of mRNA levels involves contacting the isolated mRNA with a nucleic acid molecule (probe) that can hybridize to the mRNA encoded by the gene being detected. The nucleic acid probe can be, for example, a full-length cDNA, or a portion thereof, such as an oligonucleotide
10 of at least 7, 15, 30, 50, 100, 250 or 500 nucleotides in length and sufficient to specifically hybridize under stringent conditions to a mRNA or genomic DNA encoding a marker of the present invention. Other suitable probes for use in the diagnostic assays of the invention are described herein. Hybridization of an mRNA with the probe indicates that the marker in question is being expressed.

15 In one format, the mRNA is immobilized on a solid surface and contacted with a probe, for example by running the isolated mRNA on an agarose gel and transferring the mRNA from the gel to a membrane, such as nitrocellulose. In an alternative format, the probe(s) are immobilized on a solid surface and the mRNA is contacted with the probe(s), for example, in an Affymetrix gene chip array. A skilled artisan can readily
20 adapt known mRNA detection methods for use in detecting the level of mRNA encoded by the markers of the present invention.

An alternative method for determining the level of mRNA corresponding to a marker of the present invention in a sample involves the process of nucleic acid amplification, *e.g.*, by rtPCR (the experimental embodiment set forth in Mullis, 1987,
25 U.S. Patent No. 4,683,202), ligase chain reaction (Barany, 1991, *Proc. Natl. Acad. Sci. USA*, 88:189-193), self sustained sequence replication (Guatelli *et al.*, 1990, *Proc. Natl. Acad. Sci. USA* 87:1874-1878), transcriptional amplification system (Kwoh *et al.*, 1989, *Proc. Natl. Acad. Sci. USA* 86:1173-1177), Q-Beta Replicase (Lizardi *et al.*, 1988, *Bio/Technology* 6:1197), rolling circle replication (Lizardi *et al.*, U.S. Patent No.
30 5,854,033) or any other nucleic acid amplification method, followed by the detection of the amplified molecules using techniques well known to those of skill in the art. These detection schemes are especially useful for the detection of nucleic acid molecules if

- 81 -

such molecules are present in very low numbers. As used herein, amplification primers are defined as being a pair of nucleic acid molecules that can anneal to 5' or 3' regions of a gene (plus and minus strands, respectively, or vice-versa) and contain a short region in between. In general, amplification primers are from about 10 to 30 nucleotides in length and flank a region from about 50 to 200 nucleotides in length. Under appropriate conditions and with appropriate reagents, such primers permit the amplification of a nucleic acid molecule comprising the nucleotide sequence flanked by the primers.

For *in situ* methods, mRNA does not need to be isolated from the ovarian cells prior to detection. In such methods, a cell or tissue sample is prepared/processed using known histological methods. The sample is then immobilized on a support, typically a glass slide, and then contacted with a probe that can hybridize to mRNA that encodes the marker.

As an alternative to making determinations based on the absolute expression level of the marker, determinations may be based on the normalized expression level of the marker. Expression levels are normalized by correcting the absolute expression level of a marker by comparing its expression to the expression of a gene that is not a marker, *e.g.*, a housekeeping gene that is constitutively expressed. Suitable genes for normalization include housekeeping genes such as the actin gene, or epithelial cell-specific genes. This normalization allows the comparison of the expression level in one sample, *e.g.*, a patient sample, to another sample, *e.g.*, a non-ovarian cancer sample, or between samples from different sources.

Alternatively, the expression level can be provided as a relative expression level. To determine a relative expression level of a marker, the level of expression of the marker is determined for 10 or more samples of normal versus cancer cell isolates, preferably 50 or more samples, prior to the determination of the expression level for the sample in question. The mean expression level of each of the genes assayed in the larger number of samples is determined and this is used as a baseline expression level for the marker. The expression level of the marker determined for the test sample (absolute level of expression) is then divided by the mean expression value obtained for that marker. This provides a relative expression level.

- 82 -

Preferably, the samples used in the baseline determination will be from ovarian cancer or from non-ovarian cancer cells of ovarian tissue. The choice of the cell source is dependent on the use of the relative expression level. Using expression found in normal tissues as a mean expression score aids in validating whether the marker assayed
5 is ovarian specific (versus normal cells). In addition, as more data is accumulated, the mean expression value can be revised, providing improved relative expression values based on accumulated data. Expression data from ovarian cells provides a means for grading the severity of the ovarian cancer state.

In another embodiment of the present invention, a polypeptide corresponding to
10 a marker is detected. A preferred agent for detecting a polypeptide of the invention is an antibody capable of binding to a polypeptide corresponding to a marker of the invention, preferably an antibody with a detectable label. Antibodies can be polyclonal, or more preferably, monoclonal. An intact antibody, or a fragment thereof (*e.g.*, Fab or F(ab')₂) can be used. The term "labeled", with regard to the probe or antibody, is intended to
15 encompass direct labeling of the probe or antibody by coupling (*i.e.*, physically linking) a detectable substance to the probe or antibody, as well as indirect labeling of the probe or antibody by reactivity with another reagent that is directly labeled. Examples of indirect labeling include detection of a primary antibody using a fluorescently labeled secondary antibody and end-labeling of a DNA probe with biotin such that it can be
20 detected with fluorescently labeled streptavidin.

Proteins from ovarian cells can be isolated using techniques that are well known to those of skill in the art. The protein isolation methods employed can, for example, be such as those described in Harlow and Lane (Harlow and Lane, 1988, *Antibodies: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New
25 York).

A variety of formats can be employed to determine whether a sample contains a protein that binds to a given antibody. Examples of such formats include, but are not limited to, enzyme immunoassay (EIA), radioimmunoassay (RIA), Western blot analysis and enzyme linked immunoabsorbant assay (ELISA). A skilled artisan can
30 readily adapt known protein/antibody detection methods for use in determining whether ovarian cells express a marker of the present invention.

In one format, antibodies, or antibody fragments, can be used in methods such as Western blots or immunofluorescence techniques to detect the expressed proteins. In such uses, it is generally preferable to immobilize either the antibody or proteins on a solid support. Suitable solid phase supports or carriers include any support capable of
5 binding an antigen or an antibody. Well-known supports or carriers include glass, polystyrene, polypropylene, polyethylene, dextran, nylon, amylases, natural and modified celluloses, polyacrylamides, gabbros, and magnetite.

One skilled in the art will know many other suitable carriers for binding antibody or antigen, and will be able to adapt such support for use with the present invention. For
10 example, protein isolated from ovarian cells can be run on a polyacrylamide gel electrophoresis and immobilized onto a solid phase support such as nitrocellulose. The support can then be washed with suitable buffers followed by treatment with the detectably labeled antibody. The solid phase support can then be washed with the buffer a second time to remove unbound antibody. The amount of bound label on the solid
15 support can then be detected by conventional means.

The invention also encompasses kits for detecting the presence of a polypeptide or nucleic acid corresponding to a marker of the invention in a biological sample (*e.g.* an ovary-associated body fluid such as a urine sample). Such kits can be used to determine if a subject is suffering from or is at increased risk of developing ovarian cancer. For
20 example, the kit can comprise a labeled compound or agent capable of detecting a polypeptide or an mRNA encoding a polypeptide corresponding to a marker of the invention in a biological sample and means for determining the amount of the polypeptide or mRNA in the sample (*e.g.*, an antibody which binds the polypeptide or an oligonucleotide probe which binds to DNA or mRNA encoding the polypeptide). Kits
25 can also include instructions for interpreting the results obtained using the kit.

For antibody-based kits, the kit can comprise, for example: (1) a first antibody (*e.g.*, attached to a solid support) which binds to a polypeptide corresponding to a marker of the invention; and, optionally, (2) a second, different antibody which binds to either the polypeptide or the first antibody and is conjugated to a detectable label.

30 For oligonucleotide-based kits, the kit can comprise, for example: (1) an oligonucleotide, *e.g.*, a detectably labeled oligonucleotide, which hybridizes to a nucleic acid sequence encoding a polypeptide corresponding to a marker of the invention or (2)

- 84 -

a pair of primers useful for amplifying a nucleic acid molecule corresponding to a marker of the invention. The kit can also comprise, *e.g.*, a buffering agent, a preservative, or a protein stabilizing agent. The kit can further comprise components necessary for detecting the detectable label (*e.g.*, an enzyme or a substrate). The kit can
5 also contain a control sample or a series of control samples which can be assayed and compared to the test sample. Each component of the kit can be enclosed within an individual container and all of the various containers can be within a single package, along with instructions for interpreting the results of the assays performed using the kit.

10 B. Pharmacogenomics

Agents or modulators which have a stimulatory or inhibitory effect on expression of a marker of the invention can be administered to individuals to treat (prophylactically or therapeutically) ovarian cancer in the patient. In conjunction with such treatment, the pharmacogenomics (*i.e.*, the study of the relationship between an individual's genotype
15 and that individual's response to a foreign compound or drug) of the individual may be considered. Differences in metabolism of therapeutics can lead to severe toxicity or therapeutic failure by altering the relation between dose and blood concentration of the pharmacologically active drug. Thus, the pharmacogenomics of the individual permits the selection of effective agents (*e.g.*, drugs) for prophylactic or therapeutic treatments
20 based on a consideration of the individual's genotype. Such pharmacogenomics can further be used to determine appropriate dosages and therapeutic regimens. Accordingly, the level of expression of a marker of the invention in an individual can be determined to thereby select appropriate agent(s) for therapeutic or prophylactic treatment of the individual.

25 Pharmacogenomics deals with clinically significant variations in the response to drugs due to altered drug disposition and abnormal action in affected persons. See, *e.g.*, Linder (1997) *Clin. Chem.* 43(2):254-266. In general, two types of pharmacogenetic conditions can be differentiated. Genetic conditions transmitted as a single factor altering the way drugs act on the body are referred to as "altered drug action." Genetic
30 conditions transmitted as single factors altering the way the body acts on drugs are referred to as "altered drug metabolism". These pharmacogenetic conditions can occur either as rare defects or as polymorphisms. For example, glucose-6-phosphate

- 85 -

dehydrogenase (G6PD) deficiency is a common inherited enzymopathy in which the main clinical complication is hemolysis after ingestion of oxidant drugs (anti-malarials, sulfonamides, analgesics, nitrofurans) and consumption of fava beans.

As an illustrative embodiment, the activity of drug metabolizing enzymes is a major determinant of both the intensity and duration of drug action. The discovery of genetic polymorphisms of drug metabolizing enzymes (*e.g.*, N-acetyltransferase 2 (NAT 2) and cytochrome P450 enzymes CYP2D6 and CYP2C19) has provided an explanation as to why some patients do not obtain the expected drug effects or show exaggerated drug response and serious toxicity after taking the standard and safe dose of a drug. These polymorphisms are expressed in two phenotypes in the population, the extensive metabolizer (EM) and poor metabolizer (PM). The prevalence of PM is different among different populations. For example, the gene coding for CYP2D6 is highly polymorphic and several mutations have been identified in PM, which all lead to the absence of functional CYP2D6. Poor metabolizers of CYP2D6 and CYP2C19 quite frequently experience exaggerated drug response and side effects when they receive standard doses. If a metabolite is the active therapeutic moiety, a PM will show no therapeutic response, as demonstrated for the analgesic effect of codeine mediated by its CYP2D6-formed metabolite morphine. The other extreme are the so called ultra-rapid metabolizers who do not respond to standard doses. Recently, the molecular basis of ultra-rapid metabolism has been identified to be due to CYP2D6 gene amplification.

Thus, the level of expression of a marker of the invention in an individual can be determined to thereby select appropriate agent(s) for therapeutic or prophylactic treatment of the individual. In addition, pharmacogenetic studies can be used to apply genotyping of polymorphic alleles encoding drug-metabolizing enzymes to the identification of an individual's drug responsiveness phenotype. This knowledge, when applied to dosing or drug selection, can avoid adverse reactions or therapeutic failure and thus enhance therapeutic or prophylactic efficiency when treating a subject with a modulator of expression of a marker of the invention.

30 C. Monitoring Clinical Trials

Monitoring the influence of agents (*e.g.*, drug compounds) on the level of expression of a marker of the invention can be applied not only in basic drug screening,

- 86 -

but also in clinical trials. For example, the effectiveness of an agent to affect marker expression can be monitored in clinical trials of subjects receiving treatment for ovarian cancer. In a preferred embodiment, the present invention provides a method for monitoring the effectiveness of treatment of a subject with an agent (*e.g.*, an agonist, antagonist, peptidomimetic, protein, peptide, nucleic acid, small molecule, or other drug candidate) comprising the steps of (i) obtaining a pre-administration sample from a subject prior to administration of the agent; (ii) detecting the level of expression of one or more selected markers of the invention in the pre-administration sample; (iii) obtaining one or more post-administration samples from the subject; (iv) detecting the level of expression of the marker(s) in the post-administration samples; (v) comparing the level of expression of the marker(s) in the pre-administration sample with the level of expression of the marker(s) in the post-administration sample or samples; and (vi) altering the administration of the agent to the subject accordingly. For example, increased administration of the agent can be desirable to increase expression of the marker(s) to higher levels than detected, *i.e.*, to increase the effectiveness of the agent. Alternatively, decreased administration of the agent can be desirable to decrease expression of the marker(s) to lower levels than detected, *i.e.*, to decrease the effectiveness of the agent.

20 D. Electronic Apparatus Readable Media and Arrays

Electronic apparatus readable media comprising a marker of the present invention is also provided. As used herein, "electronic apparatus readable media" refers to any suitable medium for storing, holding or containing data or information that can be read and accessed directly by an electronic apparatus. Such media can include, but are not limited to: magnetic storage media, such as floppy discs, hard disc storage medium, and magnetic tape; optical storage media such as compact disc; electronic storage media such as RAM, ROM, EPROM, EEPROM and the like; general hard disks and hybrids of these categories such as magnetic/optical storage media. The medium is adapted or configured for having recorded thereon a marker of the present invention.

30 As used herein, the term "electronic apparatus" is intended to include any suitable computing or processing apparatus or other device configured or adapted for storing data or information. Examples of electronic apparatus suitable for use with the

- 87 -

present invention include stand-alone computing apparatus; networks, including a local area network (LAN), a wide area network (WAN) Internet, Intranet, and Extranet; electronic appliances such as a personal digital assistants (PDAs), cellular phone, pager and the like; and local and distributed processing systems.

5 As used herein, "recorded" refers to a process for storing or encoding information on the electronic apparatus readable medium. Those skilled in the art can readily adopt any of the presently known methods for recording information on known media to generate manufactures comprising the markers of the present invention.

10 A variety of software programs and formats can be used to store the marker information of the present invention on the electronic apparatus readable medium. For example, the nucleic acid sequence corresponding to the markers can be represented in a word processing text file, formatted in commercially-available software such as WordPerfect and MicroSoft Word, or represented in the form of an ASCII file, stored in a database application, such as DB2, Sybase, Oracle, or the like, as well as in other
15 forms. Any number of dataprocessor structuring formats (*e.g.*, text file or database) may be employed in order to obtain or create a medium having recorded thereon the the markers of the present invention.

20 By providing the markers of the invention in readable form, one can routinely access the marker sequence information for a variety of purposes. For example, one skilled in the art can use the nucleotide or amino acid sequences of the present invention in readable form to compare a target sequence or target structural motif with the sequence information stored within the data storage means. Search means are used to identify fragments or regions of the sequences of the invention which match a particular target sequence or target motif.

25 The present invention therefore provides a medium for holding instructions for performing a method for determining whether a subject has ovarian cancer or a pre-disposition to ovarian cancer, wherein the method comprises the steps of determining the presence or absence of a marker and based on the presence or absence of the marker, determining whether the subject has ovarian cancer or a pre-disposition to ovarian
30 cancer and/or recommending a particular treatment for ovarian cancer or pre-ovarian cancer condition.

- 88 -

The present invention further provides in an electronic system and/or in a network, a method for determining whether a subject has ovarian cancer or a pre-disposition to ovarian cancer associated with a marker wherein the method comprises the steps of determining the presence or absence of the marker, and based on the presence or absence of the marker, determining whether the subject has ovarian cancer or a pre-disposition to ovarian cancer, and/or recommending a particular treatment for the ovarian cancer or pre-ovarian cancer condition. The method may further comprise the step of receiving phenotypic information associated with the subject and/or acquiring from a network phenotypic information associated with the subject.

10 The present invention also provides in a network, a method for determining whether a subject has ovarian cancer or a pre-disposition to ovarian cancer associated with a marker, said method comprising the steps of receiving information associated with the marker receiving phenotypic information associated with the subject, acquiring information from the network corresponding to the marker and/or ovarian cancer, and
15 based on one or more of the phenotypic information, the marker, and the acquired information, determining whether the subject has a ovarian cancer or a pre-disposition to ovarian cancer. The method may further comprise the step of recommending a particular treatment for the ovarian cancer or pre-ovarian cancer condition.

The present invention also provides a business method for determining whether a
20 subject has ovarian cancer or a pre-disposition to ovarian cancer, said method comprising the steps of receiving information associated with the marker, receiving phenotypic information associated with the subject, acquiring information from the network corresponding to the marker and/or ovarian cancer, and based on one or more of the phenotypic information, the marker, and the acquired information, determining
25 whether the subject has ovarian cancer or a pre-disposition to ovarian cancer. The method may further comprise the step of recommending a particular treatment for the ovarian cancer or pre-ovarian cancer condition.

The invention also includes an array comprising a marker of the present invention. The array can be used to assay expression of one or more genes in the array.
30 In one embodiment, the array can be used to assay gene expression in a tissue to ascertain tissue specificity of genes in the array. In this manner, up to about 7600 genes

can be simultaneously assayed for expression. This allows a profile to be developed showing a battery of genes specifically expressed in one or more tissues.

In addition to such qualitative determination, the invention allows the quantitation of gene expression. Thus, not only tissue specificity, but also the level of expression of a battery of genes in the tissue is ascertainable. Thus, genes can be grouped on the basis of their tissue expression *per se* and level of expression in that tissue. This is useful, for example, in ascertaining the relationship of gene expression between or among tissues. Thus, one tissue can be perturbed and the effect on gene expression in a second tissue can be determined. In this context, the effect of one cell type on another cell type in response to a biological stimulus can be determined. Such a determination is useful, for example, to know the effect of cell-cell interaction at the level of gene expression. If an agent is administered therapeutically to treat one cell type but has an undesirable effect on another cell type, the invention provides an assay to determine the molecular basis of the undesirable effect and thus provides the opportunity to co-administer a counteracting agent or otherwise treat the undesired effect. Similarly, even within a single cell type, undesirable biological effects can be determined at the molecular level. Thus, the effects of an agent on expression of other than the target gene can be ascertained and counteracted.

In another embodiment, the array can be used to monitor the time course of expression of one or more genes in the array. This can occur in various biological contexts, as disclosed herein, for example development of ovarian cancer, progression of ovarian cancer, and processes, such a cellular transformation associated with ovarian cancer.

The array is also useful for ascertaining the effect of the expression of a gene on the expression of other genes in the same cell or in different cells. This provides, for example, for a selection of alternate molecular targets for therapeutic intervention if the ultimate or downstream target cannot be regulated.

The array is also useful for ascertaining differential expression patterns of one or more genes in normal and abnormal cells. This provides a battery of genes that could serve as a molecular target for diagnosis or therapeutic intervention.

E. Surrogate Markers

The markers of the invention may serve as surrogate markers for one or more disorders or disease states or for conditions leading up to disease states, and in particular, ovarian cancer. As used herein, a "surrogate marker" is an objective
5 biochemical marker which correlates with the absence or presence of a disease or disorder, or with the progression of a disease or disorder (*e.g.*, with the presence or absence of a tumor). The presence or quantity of such markers is independent of the disease. Therefore, these markers may serve to indicate whether a particular course of treatment is effective in lessening a disease state or disorder. Surrogate markers are of
10 particular use when the presence or extent of a disease state or disorder is difficult to assess through standard methodologies (*e.g.*, early stage tumors), or when an assessment of disease progression is desired before a potentially dangerous clinical endpoint is reached (*e.g.*, an assessment of cardiovascular disease may be made using cholesterol levels as a surrogate marker, and an analysis of HIV infection may be made using HIV
15 RNA levels as a surrogate marker, well in advance of the undesirable clinical outcomes of myocardial infarction or fully-developed AIDS). Examples of the use of surrogate markers in the art include: Koomen *et al.* (2000) *J. Mass. Spectrom.* 35: 258-264; and James (1994) *AIDS Treatment News Archive* 209.

The markers of the invention are also useful as pharmacodynamic markers. As
20 used herein, a "pharmacodynamic marker" is an objective biochemical marker which correlates specifically with drug effects. The presence or quantity of a pharmacodynamic marker is not related to the disease state or disorder for which the drug is being administered; therefore, the presence or quantity of the marker is indicative of the presence or activity of the drug in a subject. For example, a
25 pharmacodynamic marker may be indicative of the concentration of the drug in a biological tissue, in that the marker is either expressed or transcribed or not expressed or transcribed in that tissue in relationship to the level of the drug. In this fashion, the distribution or uptake of the drug may be monitored by the pharmacodynamic marker. Similarly, the presence or quantity of the pharmacodynamic marker may be related to
30 the presence or quantity of the metabolic product of a drug, such that the presence or quantity of the marker is indicative of the relative breakdown rate of the drug *in vivo*. Pharmacodynamic markers are of particular use in increasing the sensitivity of detection

- 91 -

of drug effects, particularly when the drug is administered in low doses. Since even a small amount of a drug may be sufficient to activate multiple rounds of marker transcription or expression, the amplified marker may be in a quantity which is more readily detectable than the drug itself. Also, the marker may be more easily detected

5 due to the nature of the marker itself; for example, using the methods described herein, antibodies may be employed in an immune-based detection system for a protein marker, or marker-specific radiolabeled probes may be used to detect a mRNA marker.

Furthermore, the use of a pharmacodynamic marker may offer mechanism-based prediction of risk due to drug treatment beyond the range of possible direct

10 observations. Examples of the use of pharmacodynamic markers in the art include: Matsuda *et al.* US 6,033,862; Hattis *et al.* (1991) *Env. Health Perspect.* 90: 229-238; Schentag (1999) *Am. J. Health-Syst. Pharm.* 56 Suppl. 3: S21-S24; and Nicolau (1999) *Am. J. Health-Syst. Pharm.* 56 Suppl. 3: S16-S20.

The markers of the invention are also useful as pharmacogenomic markers. As

15 used herein, a "pharmacogenomic marker" is an objective biochemical marker which correlates with a specific clinical drug response or susceptibility in a subject (see, e.g., McLeod *et al.* (1999) *Eur. J. Cancer* 35(12): 1650-1652). The presence or quantity of the pharmacogenomic marker is related to the predicted response of the subject to a specific drug or class of drugs prior to administration of the drug. By assessing the

20 presence or quantity of one or more pharmacogenomic markers in a subject, a drug therapy which is most appropriate for the subject, or which is predicted to have a greater degree of success, may be selected. For example, based on the presence or quantity of RNA or protein for specific tumor markers in a subject, a drug or course of treatment may be selected that is optimized for the treatment of the specific tumor likely to be

25 present in the subject. Similarly, the presence or absence of a specific sequence mutation in marker DNA may correlate with drug response. The use of pharmacogenomic markers therefore permits the application of the most appropriate treatment for each subject without having to administer the therapy.

VI. Experimental Protocol

A. Subtracted Libraries

Subtracted libraries are generated using a PCR based method that allows the isolation of clones expressed at higher levels in one population of mRNA (tester) compared to another population (driver). Both tester and driver mRNA populations are converted into cDNA by reverse transcription, and then PCR amplified using the SMART PCR kit from Clontech. Tester and driver cDNAs are then hybridized using the PCR-Select cDNA subtraction kit from Clontech. This technique results in both subtraction and normalization, which is an equalization of copy number of low-abundance and high-abundance sequences. After generation of the subtractive libraries, a group of 96 or more clones from each library is tested to confirm differential expression by reverse Southern hybridization.

To create the subtracted libraries, a first group of regular cDNA libraries was constructed. Library johOa was constructed from a pool of 5 normal ovarian epithelial cell cultures. Library johOb was constructed from a pool of 5 ascites short cultured samples from ovarian cancer patients. Library johOc was constructed from a pool of 6 serous late stage (III/IV) tumor samples. Three subtracted libraries were generated from tumor samples. Library johOd was a subtracted ascites library, where the tester was johOb, and the driver was johOa. The johOe and the johOf library were both subtracted stage III/IV serous tumor libraries. The tester for both of these libraries was johOc, and the driver was a pooled RNA from normal tissues. The tissues used for this driver pool were: kidney, small intestine, prostate, lung, heart, muscle, spleen, pancreas, liver, and lymphocyte. Library cMhOg was the same as the johOc and johOf libraries, with the exception that normal ovary was added to the driver. cMhOh, i, j, and k are all stage I/II subtracted libraries made from pooled tumor RNAs of different histological types (h=serous, I=endometrioid, j=clear cell, k=mucinous). The driver was the same for these 4 libraries. It consisted of normal ovarian epithelial RNA and PBML RNA. Of the markers listed in Table 1, SEQ ID NOS: 1-129, 916-1029, 1566-1571 and 1607-1865 were identified in library johOa. Markers identified in johOb include SEQ ID NOS: 130-177, 1030-1081, 1572-1574, and 1866-1974. Markers identified in johOc include SEQ ID NOS: 178-269, 1082-1120, 1575-1577, and 1975-2060. Markers identified in johOd include SEQ ID NOS: 270-370, 1121-1304, 1578-1592, and 2061-2244. Markers

- 93 -

identified in johOe include SEQ ID NOS: 371-611, 1305-1416, 1593-1596 and 2245-2487. Markers identified in johOf include SEQ ID NOS: 612-915, 1417-1565, 1597-1606, and 2488-2871. Of the markers listed in Table 1A, SEQ ID NOS: 2872-2976, 3817-3898, 4438-4443 and 4474-4675 were identified in library cMhOg. Markers
5 identified in cMhOh include SEQ ID NOS: 2977-3376, 3899-4072, 4444-4455, and 4676-5303. Markers identified in cMhOi include SEQ ID NOS: 3377-3495, 4073-4158, 4456-4460, and 5304-5637. Markers identified in cMhOj include SEQ ID NOS: 3496-3742, 4195-4390, 4461-4468, and 5638-6197. Markers identified in cMhOk include SEQ ID NOS: 3743-3816, 4391-4437, 4469-4473 and 6198-6398.

10

VII. Summary Of The Data Provided In The Tables

Tables 1, 1A, 2 and 3 are being filed concurrently herewith on a compact disc in lieu of paper copies. The compact disc submitted is formatted from an IBM-PC and is compatible with MS-Windows. The disc contains the following four (4) files:

15 Table1.text, containing 1,223kb, Table1A.text, containing 1,582kb, Table2.text, containing 10,600kb, and Table3.text, containing 568kb. The material on the compact disc, namely Tables 1, 1A, 2 and 3, is expressly incorporated by reference.

Tables 1 and 1A show 6398 novel nucleotide sequences. These 6398 novel sequences were determined to be novel through various BLAST searches of available
20 databases. Of these novel markers, SEQ ID NOS: 1566 – 1606 and 4438-4473 are preferred, SEQ ID NOS: 916-1565 and 3817-4437 are more preferred, and SEQ ID NOS: 1 – 915 and 2872-3816 are most preferred.

The sequences of Tables 1 and 1A were re-interpreted and vector sequences removed and those sequences are set forth in Table 2.

25 Table 3 correlates the SEQ ID NOS. from Tables 1 and 1A with those of Table 2.

The contents of all references, patents, published patent applications, and databases cited throughout this application are hereby incorporated by reference.

30 Other Embodiments

Those skilled in the art will recognize, or be able to ascertain using no more than routine experimentation, many equivalents to the specific embodiments of the invention

- 94 -

described herein. Such equivalents are intended to be encompassed by the following claims.

What is claimed is:

5

- 95 -

Claims

1. An isolated nucleic acid molecule comprising a nucleotide sequence of Tables 1-2, or a complement thereof.
- 5 2. A vector which contains the nucleic acid molecule of claim 1.
3. A host cell which contains the nucleic acid molecule of claim 1.
- 10 4. An isolated polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence of Tables 1-2.
5. An antibody which selectively binds to a polypeptide of claim 4.
- 15 6. A method for producing a polypeptide comprising culturing the host cell of claim 3 under conditions in which the nucleic acid molecule is expressed.
7. A method for detecting the presence of a polypeptide of claim 4 in a sample comprising:
 - 20 a) contacting the sample with a compound which selectively binds to the polypeptide; and
 - b) determining whether the compound binds to the polypeptide in the sample to thereby detect the presence of a polypeptide of claim 4 in the sample.
- 25 8. A kit comprising a compound which selectively binds to the polypeptide of claim 4.

- 96 -

9. A method for detecting the presence of a nucleic acid molecule of claim 1 in a sample comprising:

- a) contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule; and
- 5 b) determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample to thereby detect the presence of a nucleic acid molecule of claim 1 in the sample.

10. The method of claim 9, wherein the sample comprises mRNA molecules and is contacted with a nucleic acid probe.

11. The method of claim 9, wherein the sample is isolated from ovarian tissue.

12. The method of claim 9, wherein the sample is a tumor sample.

13. A kit comprising a compound which selectively hybridizes to a nucleic acid molecule of claim 1.

14. A method of assessing whether a patient is afflicted with ovarian cancer, the method comprising comparing:

- a) the level of expression of a marker in a patient sample, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
 - 25 b) the normal level of expression of the marker in a control non-ovarian cancer sample,
- wherein a significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer.

15. The method of claim 14, wherein the marker corresponds to a secreted protein.

- 97 -

16. The method of claim 14, wherein the marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

17. The method of claim 14, wherein the sample comprises cells obtained
5 from the patient.

18. The method of claim 17, wherein the sample is an ovarian tissue sample.

19. The method of claim 14, wherein the sample is an ovary-associated body
10 fluid.

20. The method of claim 14, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a protein or protein fragment corresponding to the marker.

15

21. The method of claim 20, wherein the presence of the protein or protein fragment is detected using a reagent which specifically binds with the protein or protein fragment.

22. The method of claim 21, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.

23. The method of claim 14, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a transcribed
25 polynucleotide or portion thereof, wherein the transcribed polynucleotide comprises the marker.

24. The method of claim 23, wherein the transcribed polynucleotide is an mRNA.

30

25. The method of claim 23, wherein the transcribed polynucleotide is a cDNA.

- 98 -

26. The method of claim 23, wherein the step of detecting further comprises amplifying the transcribed polynucleotide.

27. The method of claim 14, wherein the level of expression of the marker in
5 the sample is assessed by detecting the presence in the sample of a transcribed polynucleotide which anneals with the marker or anneals with a portion of a polynucleotide wherein the polynucleotide comprises the marker, under stringent hybridization conditions.

10 28. The method of claim 14, wherein the level of expression of the marker in the sample differs from the normal level of expression of the marker in a patient not afflicted with ovarian cancer by a factor of at least about 2.

29. The method of claim 14, wherein the level of expression of the marker in
15 the sample differs from the normal level of expression of the marker in a patient not afflicted with ovarian cancer by a factor of at least about 5.

30. The method of claim 14, comprising comparing:
a) the level of expression in the sample of each of a plurality of
20 markers independently selected from the markers listed in Tables 1-2, and
b) the normal level of expression of each of the plurality of markers in samples of the same type obtained from control humans not afflicted with ovarian cancer,
wherein the level of expression of more than one of the markers is significantly
25 altered, relative to the corresponding normal levels of expression of the markers, is an indication that the patient is afflicted with ovarian cancer.

31. The method of claim 30, wherein the level of expression of each of the markers is significantly altered, relative to the corresponding normal levels of
30 expression of the markers, is an indication that the patient is afflicted with ovarian cancer.

- 99 -

32. The method of claim 30, wherein the plurality comprises at least three of the markers.

33. The method of claim 30, wherein the plurality comprises at least five of the markers.

34. A method for monitoring the progression of ovarian cancer in a patient, the method comprising:

- a) detecting in a patient sample at a first point in time, the expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2;
- b) repeating step a) at a subsequent point in time; and
- c) comparing the level of expression detected in steps a) and b), and therefrom monitoring the progression of ovarian cancer.

35. The method of claim 34, wherein the marker corresponds to a secreted protein.

36. The method of claim 34, wherein the marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

37. The method of claim 34, wherein the sample comprises cells obtained from the patient.

38. The method of claim 37, wherein the patient sample is an ovarian tissue sample.

39. The method of claim 34, wherein between the first point in time and the subsequent point in time, the patient has undergone surgery to remove ovarian tissue.

- 100 -

40. A method of assessing the efficacy of a test compound for inhibiting ovarian cancer in a patient, the method comprising comparing:

- 5 a) expression of a marker in a first sample obtained from the patient and exposed to the test compound, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
- b) expression of the marker in a second sample obtained from the patient, wherein the sample is not exposed to the test compound, wherein a significantly lower level of expression of the marker in the first sample, relative to the second sample, is an indication that the test compound is
- 10 efficacious for inhibiting ovarian cancer in the patient.

41. The method of claim 40, wherein the first and second samples are portions of a single sample obtained from the patient.

- 15 42. The method of claim 40, wherein the first and second samples are portions of pooled samples obtained from the patient.

43. A method of assessing the efficacy of a therapy for inhibiting ovarian cancer in a patient, the method comprising comparing:

- 20 a) expression of a marker in the first sample obtained from the patient prior to providing at least a portion of the therapy to the patient, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
- b) expression of the marker in a second sample obtained from the
- 25 patient following provision of the portion of the therapy, wherein a significantly lower level of expression of the marker in the second sample, relative to the first sample, is an indication that the therapy is efficacious for inhibiting ovarian cancer in the patient.

- 101 -

44. A method of selecting a composition for inhibiting ovarian cancer in a patient, the method comprising:

- a) obtaining a sample comprising cancer cells from the patient;
- b) separately exposing aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2; and
- d) selecting one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

45. A method of inhibiting ovarian cancer in a patient, the method comprising:

- a) obtaining a sample comprising cancer cells from the patient;
- b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2; and
- d) administering to the patient at least one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

46. A kit for assessing whether a patient is afflicted with ovarian cancer, the kit comprising reagents for assessing expression of a marker selected from the group consisting of the markers listed in Tables 1-2.

47. A kit for assessing the presence of ovarian cancer cells, the kit comprising a nucleic acid probe wherein the probe specifically binds with a transcribed polynucleotide corresponding to a marker selected from the group consisting of the markers listed in Tables 1-2.

- 102 -

48. A kit for assessing the suitability of each of a plurality of compounds for inhibiting ovarian cancer in a patient, the kit comprising:

- a) the plurality of compounds; and
- b) a reagent for assessing expression of a marker selected from the group consisting of the markers listed in Tables 1-2.

49. A method of making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with ovarian cancer, the method comprising:

- isolating a protein or protein fragment corresponding to a marker selected from the group consisting of the markers listed in Tables 1-2;
- immunizing a mammal using the isolated protein or protein fragment;
- isolating splenocytes from the immunized mammal;
- fusing the isolated splenocytes with an immortalized cell line to form hybridomas; and
- screening individual hybridomas for production of an antibody which specifically binds with the protein or protein fragment to isolate the hybridoma.

50. An antibody produced by a hybridoma made by the method of claim 42.

51. A kit for assessing the presence of human ovarian cancer cells, the kit comprising an antibody, wherein the antibody specifically binds with a protein or protein fragment corresponding to a marker selected from the group consisting of the markers listed in Tables 1-2.

52. A method of assessing the ovarian cell carcinogenic potential of a test compound, the method comprising:

- a) maintaining separate aliquots of ovarian cells in the presence and absence of the test compound; and
- b) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2,

- 103 -

wherein a significantly altered level of expression of the marker in the aliquot maintained in the presence of the test compound, relative to the aliquot maintained in the absence of the test compound, is an indication that the test compound possesses human ovarian cell carcinogenic potential.

5

53. A kit for assessing the ovarian cell carcinogenic potential of a test compound, the kit comprising ovarian cells and a reagent for assessing expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2.

10

54. A method of inhibiting ovarian cancer in a patient at risk for developing ovarian cancer, the method comprising inhibiting expression of a gene corresponding to a marker selected from the markers listed in Tables 1-2.

15

55. A method of treating a patient afflicted with ovarian cancer, the method comprising providing to cells of the patient an antisense oligonucleotide complementary to a polynucleotide corresponding to a marker selected from the markers listed in Tables 1-2.

20

56. A method of inhibiting ovarian cancer in a patient at risk for developing ovarian cancer, the method comprising decreasing expression of a gene corresponding to a marker selected from the markers listed in Tables 1-2.

25

57. A method for determining whether ovarian cancer has metastasized in a patient, the method comprising comparing:

a) the level of expression of a marker in a patient sample, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and

b) the normal level or non-metastatic level of expression of the marker in a control sample

30

- 104 -

wherein a significant difference between the level of expression in the patient sample and the normal level or non-metastatic level is an indication that the ovarian cancer has metastasized.

5 58. The method of claim 57, wherein the marker corresponds to a secreted protein.

59. The method of claim 57, wherein the marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

10

60. The method of claim 57, wherein the sample comprises cells obtained from the patient.

15 61. The method of claim 60, wherein the patient sample is an ovarian tissue sample.

62. A method for assessing the aggressiveness or indolence of ovarian cancer comprising comparing:

20 a) the level of expression of a marker in a sample, wherein at least one marker is selected from the markers of Tables 1-2, and

 b) the normal level of expression of the marker in a control sample, wherein a significant difference between the level of expression in the sample and the normal level is an indication that the cancer is aggressive or indolent.

25 63. The method of claim 62, wherein the marker corresponds to a secreted protein.

64. The method of claim 62, wherein marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

30

65. The method of claim 62, wherein the sample comprises cells obtained from the patient.

66. The method of claim 65, wherein the patient sample is an ovarian tissue sample.

TABLE 1

1/467

Sequence 1

ACGCGTCCGGGAGACACAAAGCAGGAAGCCTCCGGGAGACCAGAGCTGGGTGCAGACATA
CACACACATACACACAGACACACAGAGTCACACACACTCACACACACTCTCTCTCTCT
CTCCCTCTGCTTTCTCTCTCTCTCTCTCTCTGTCTTTCCTCCTGGACAGATCCACA
GTTATACACAGAAACAAACACACACGCAGTAGAGAAGTGATTACAAACACTTAAAGAC
ATAAATCACAGGTGCAAAGCCATACCTGGGCTCAAAAACCTCCAAGAGAACGCAGCCTCA
GACCCACCCAGGGGCCAGGGGCCAGGCTGTTTGGCAGAGACCAGCCAGGCGGGACCCAGGC
TTGCACGGGCAGGTACACGACATTCTTGGGCATACGCAGCCCGCCTGGCCGGAGCTGTGG
GAGTCCTCAGCCCCAAGACCCAGCAGGCGTCTGAGGCCTGCCCACTAAGGAGGAGGAGTC
ATTGCTGCCATCATTTATCATNCCCTCCCCAGCCACAGTCTGAGGAGCCCNTGTNCACCC
TTCCA

Sequence 2

CGTCCGGAAGCTGGTGGGAATGCTAAGTTCCGAGAGTTCCTGGAGTCTCAGGAGGATTA
CGATCCTTGCTGGTCCTTGACAGGAGAAGTACAACAGCAGAGCCGCGGCCCTCTTAGGGA
TAAGGTGGTCGCTCTGGCCGAAGGCAGAGAGTGGTCTTTGGAGTCATCACCTGCCAGAA
CTGGACCCTACCTNAGCCCANGACGCTGCCGTCCATGGTGCACCGAGTCTCTGGCCAGCC
GCAGAGTGTGACCGCCTCCTNGGACAAGGCTTTTGAAGACTGGCTGAATGATGACCTCGG
CTCCTATCAAGGGGGCCAGGGGAATCGCTACGTGGGGTTTGGGAACACGCCACCGCCTCA
NAAGAAAGAAGATGACTTTCTCAACAACGCCATGTCCTCCCTGTACTCGGGCTGGA

Sequence 3

NCCACGCGTCCGGGACGCGGGCGCCAGGTGCACAGCCCCAGTCCGCTGCGGGCGGGCGTC
GACATCTGCCGCGTGAGCGCGAGCTGGAGCTACACCGCTTTCGTGACCCGTGGAGGCCGC
TTGGAGCTGTCCGGCTCAGCCAGCGGCGCGGGCGGGCCGCTGCAAGGACGCGTGGGCCTCG
GAGGGGCTCCTCGCGGTGCTGCGCGCCGGGCCGGGGCCGAGGCGTTACTGCAGGTCTGG
GCGGCCGAATCGGCGCTGCGTGGGGAGCCATTGTGGGCCCAAGATGGTGGTGGCCGAGGC
CGAAGGGGGAAGGACGATCCGGCCGGGTGAAGGCCCAAGCTTGGGGAGGCTACCCCTTGC
TTGCCCTGCGGCCCGCTGCCCTACGTGAGCCCCGCGGGCCGCCCTTCTACCGGCCCTT
TGGCTTCCGGGAGCTTGCGGGCAACGCCAAGTTGGGAGCTGGGGCCGCCAGCAACCCCG
TTGCTTGTGGACGCTGTGCCCAAAGGTGGTTTCTGGGGGGCGGGG

Sequence 4

AGTCNCCACGCGTCCGGGAATTGANGCCGCGGGGCGGGCGGGCGGGCGGGCTGGGCGGGC
GCCGGGACCCAGCGGGCCAGGTGGGGACGGCGCGGAGCGGGTGCGGGAGATGCCGTGCGG
GACTGGGGCCACCTGAGCCGCCCGCCTCGTCCCCGCCTTCTGTGGGAAGGATGTGCGCGC
GGATGGCCGGTGCACAACAGCGGCCCTCGGGGGCCCTACGGCCCCCTGGCTCTGCCTCC
TGGTGGCCCTCGCCCTGGGACCGTCTGTGAGAGTGGACTGTGGCCAGGCTCCCTGGACCC
TGTCTACCTGCCGGCAGCCCTGGAGCTCCTAGACGCCCTGAACACT

Sequence 5

TCNCCACGCGTCCGACTGTATGTATTCTGGATACAGGGGATACTGGGCTCGCTATGTGTG
TGGAGCCATCCCTTCCCTGCCCCAGCCCCACCTCCCTCTCAAACCTCTCTGGCTCTTTC
TGAGCTTCCCTTCTGCTCCCCAGCTTGCCAGTGCTCAGTGCCCCACTTGGCTCTTTTG
CTACTTCGGGTGAGGTGGAGCCTCTTGGGAATGTGAAGTGCTTACAGAAAGATTGCACT
TCAAGAGGAGAGGCTGCAGGGAGCCATCCTAAACCCAGAGGCCTGGAGCTTACCCGTGTC
ACTTTACTTTTGTACACAAGGGGGTCTCCTTAGTGCCCTCGAGAAGGGATTCTTGGGCC
TGAGCTTCTACTCTGAGGCCACCTTCTGTGCAAGCCCCAAGCTCCCTCAACTCTAGGCT
TGGAGTCCTCAGTGGGGAAGGCCCTGNTTTGGGG

Sequence 6

CGTCCGCGTCCCTCGCTGCGGAAAGTTGGGGCAACCTGTTGCTAGTCTGGTGGTTGGTGAC
AGCGAGGCTTCCGCGCTCGCTGCTGGTGAGCAGCCCCGGCGTGCCCCGCGGGCTGGAAGA
GGCGGCGGCGTGATGCGGCCCGTGACGCGCCCCGCGCGGCCCGCGAGAACCTGGCCTC
CCTGGAGCGCGAGCGCGCCCGGGCGCACTGGCGGGCCCGCAGGAAGCTGCTGGAGATCCA

TABLE 1

2/467

GAGCCTGCTCGACGCCATCAAGAGTGAGGTGGAGGCAGAGGAGCGGGGCGCCCGGGCCCC
AGCACCCCGCCCCGCGTGCGGAGGCTGAGGAGNCGGGTGGCTCGGCTGTGCGCCGAAGC
AGAGAGGAAGGCTGCGGAAGCGGCGCGGATGGGGCAGGCGGGATCGTGGGAGCTGCACNN
ACCGGATCGCCGGCTTGCGAGTGCTGCTGAGCCGGCGAGGCCNCGGGTCTGGAAGCGGA
ANCGCGCGGG

Sequence 7

NTTCGGGAGTCGACCACGCGTCCGCGCGCTGGAGGAGTGGAGCAAGCACCCGGCCCGGCC
CTGGGGGCTGACAGTCGGCAAAGTTTGGCCGAAGAGGAAGTGGTCTCAAACCCCGGCAG
GTGGCGACCAGGCCAGACCAGGGGCGCTCGCTGCCTGCGGGCGGGCTGTAGGCGAGGGCG
CGCCCCAGTGCCGAGACCCGGGGCTTCAGGAGCCGGCCCGGGAGAGAAGAGTGCGGCGG
CGGACGGAGAAAAACAACCTCAAAGTTGGCGAAAGGCACCGCCCTACTCCCGGGCTTGCC
GCCGCTCCCGCCCCCAGCCCTGGCATCCAGAGTACGGGTGAGCCCGGGCCATGGAGC
CCCCCTGGGGAAGGCGGCACCAAGGGAGCCTTGGGCGCCNCGGGCTTCGGCCGCGACCCC
ATTTGGGGTAGACCACAAGAAAGCTTCGGGACCCTTTCGGCACCTTTGGACAGCCAAGAA
TGGCTGNTGGGCACCCTTTCTTCT

Sequence 8

CCCCGCGTCCGGAGCACGCAAAGGGAATAAATTGTAATTAGGTGGTGGGTGGCTAAAAAT
GACAATGCAAAGGTGTTGGATTAAAAAAAATCTGGTAGTAGAGGGAAATTATGGAGGA
TTTTTAAAAAGGTTAATGATAATATCCATCTACTTATGTAACTTTTTTGGAGATACCTG
ATAATAGTGTAGAGTGCATTGGAGAGGAAAAGTAGGAGTTGTAAAGACCATTTTGGATAA
ACTTTGAAGCAAGGGATAATGGCCTCAACCAAGGTAGTGGTGTGAAGATTGTTTACATA
AATAAGCAGATACAAATAGAAGGGATTTTTCAAGTGGCATTGTAACGCACTTTTCAAAG
GTTATTTGCCAAAAATCAAATTAACGGTATCTTCAAAAATCATGTTTGATGGATGTATCA
TCAAGGGCTTTCTTAAATTTTGTGAAAGCCAAGGAA

Sequence 9

CGCCTTCCCGGGAAGTTTGGAGGGCCCCGNAGGGGAAGCCCCCGCGNCTTCNNGGGGGCCN
GNCGGGCTTGGAAGGCAANCCCCACCCCAAGTTTCCCCGCCNANGGANTNCAATGAANCT
TGACCGGGGCCCCCGGAACCCNCGCTNGNCTTNTTNGGGGGTGGTTCCTTGGGTCCG
GTGGGGGGGAACCCCAAGTGCTTTTCAAGGCCCGCGCCGGGGCCCGGGGCCCGGAAAGG
GCCTTTCAAGTTCCTTNCCTTTCCCGGNTTGAAAGAAGGNAAGGCGCGGAANGGAAAC
CNGGGNAAAACCCGNCNGGNNGGGGCGGCCTTCNNCCGCCNNGGCGCCCCCTTGCCNNGGG
GGGGGNAAAGGGGNCAAGTTTTCCNNGGGGCCCGGGGCCCGGCGNCCCTTTNAAN
TCAAGGGGGCGGGNCCGNNCTTTCCCAANNCGGCCAAGTTCCTTCAAAGGGGGCCCCC
CGGNTTTGGGGCCCGNCCGGGNCNGNAACCTTGGGGAAGGAAAAAATTCAAAAAGTTTT
GTTGGCCCCGTTTTCCGGGTNGGAATTGCCCCCNAAAATTTGNAAGCCGGGGGGGGGNN
NCCTTGGGGGCCCTTCTTTGCCCCNTTTAAAGGGAANGGGCNAAAACCTTTNCCCAAC
CGNCCAANNCCCCGTNAAAAAANGGGCGGCCTTNNTTTGNCCGGGGCCCCNAANAA
GGGCCTTTTCGNTTTTTTCGGGTTTTTCCCCCGGGCCGGGCGGGCGGNNCNTTTTTT
TTTTTGCTTTTAAAGGGGG

Sequence 10

NCGCGTCCGCGCATTGTGGCCAAGTGCCATGAGGAGCAGCTGGATCATTCTGTCCAGTC
ATATATTAAGTTCGTGTTCAAGACCAGGGCATGCAAGGAGAGGACTGTACATGAGGAAC
GNCTAAAAATGTGACTGGTCTTTTGAATCAAATGACTCAACAACAGTAAAGCATGTCCT
AAAGCATTCTGGTCTTCTTTGCAATTATCCTAAAATCGATGGCACAGCACTTGATTGA
CACAAATAAAATCCAGCTTCCCGGCCCTCAGAGATTTCTGAATCTTACCAAATGAATT
GGACAATCTTGNCATGGTCCTATCCGACCATGTGATTTGGGAAATACAAGGATGCACTTG
AAGAAACANGAAGGGCAAACCACAGCGTTGCCAGATTTCTCAAGCGCTGCTTTAC

Sequence 11

CGCCNCGCGTCCGGCTTCTAGAAAGAGCACAGTCCCTTAAAGCACCCCTCTATTGCTACAA
TTAAAAGTCTAGCAGATTGTAACCTTAGTTACACAAGTTCTAGAGATGCTTTTGGCTATG
CTACACTGAAAAGACTACAGCAACAAAGAATGCATCCATCCTTATCTCACTCTGAAGCTT

TABLE 1

3/467

TGGCATCTCCAGCAAAAAGATGTGCTATTTACTGATACCATCACCATGAAGGCCAACAGTT
TTGAGTCCAGATTAACACCAAGCAGGTTTCATGAAAGCCTTAAGTTATGCATCATTAGATA
AAGAAGATTTATTGAGTCCTATTAATCAAAATACCCTGCAACCGATCTTCCTCAGTGCGG
GCCATGGNGTCCAGTGCCACATNGGGGGGGTCAGAATGATTACATTGGGCTTGCTCTCCC
GGNGGATATAAATGATATATTTTCANGGTAAGGGTATTTCTTATTTTTAGACAAAAAACAT
CCCNCAATGATGATCCAGNGCCAGAGCATTTGCCCTGAATGCAGGAGGGCTTTTCATNTG
GNACTGGGNGGGCTTTGNAAAAATTTTTT

Sequence 12

TTCGGGAGTCGACCACGCGTCCGCCAAGTCCTGCGATGATGGACTCAACACCTTCCGCGA
CGAGGGCCGGGTTCTGCGGCGCTGCCAAACCGCATACCCAGCCTGCGGATGCTCCGGAG
CTTCTTACCCGACGGGTCTTGATAGCTGGGGCACCTCTGAAGATGCTGACGCTCCTTC
TAAGCGACACTCAACCTCTGACCTCTCAGATGCGACCTTCAGCGATATCAGGAGAGAAGG
CTGGTTGTATTATAAGCAGATTCTACCAAGAAGGGGAAGGCTGAGGACCGGGATGACAT
GCTGGGCTGGATCAGAGCGATCCGGGAGAACAGCAGGGCCGAGGGCGAGGACCCCGGCT
GTGCCAACCAAGCTCTTGATCAGCAAGAAGCTTAATGATTATCGCAAAGTGAGCCATAGC
TCTGGGCCCAAAGCTTGATTTCTTCCC

Sequence 13

GTATTAATGTTCTCAGGCATGAAGCAGAATTTTACGGGATCACTCCATTAGTAAGAAGGC
TTCTCTTATGTGAAGAATTGGAGCGTTCCTCTTGTTGGCAGTGTCTTTTTTCATGGTTACT
TGCCCCCACCAGGTATTCTAGTNCGTAAATAAACAACACAGTCAGATCTGCTGATTCT
AGGAATGGTCTAAATTCTACAGAAGGTGAAGCCCGGGGAAATGGTACACAGCCTGTTCTC
TCTGGAACGGGAGAAGAACTGTTAGGCTAGGATTTCTGTGGATCCACNAAAGGTGCTA
ATAGTAGCTGGCCATCACAACCTGGATTGTAGCTGCATATGCCCATTTTGCTGTGTGTTAC
AGAATCAAAGAATNTTNANGATGGCAGCAAGTGNTTACGAGCCCATATTTGGATTGGACT
ATCGAACGAGTAGNTTTAATGCAAAGGTGGATGGAGGGCCACATGGAGACAAAAGACAA
AAATG

Sequence 14

GCCNCGCGTCCGAAAAAATTAAGAGAAGGCCTGGCGGCCGGTCTGAAGTCATCTATAATT
ATGTACAACGCCCTTCATCCAGATGTCATGGGAAAAGGAAGAAGGGAAGAGTCGCCATG
TGGATTTCTAGTGTGTTTGAAGCAAATCCCTCACGAATCTGGTAGCTGCTGGAGATGATG
TCTTGGAGGACCAGGAGATTAATGCATCACCCACCCCAAGTGGATGAACCTTGACCGGC
TAAATGCCCACTTTCTCAGATGGCTTCTAACGACTTTCAGGATTAGGGCCAGCTGTGGG
TCTACTCCTTGTTGGAGCCCATCTCACCTGGGATGCCTGCAGCCAGCCCTCCCTCGTGAT
TTGTCTCACCTTGAGTAGGAGACATGCTTCTCCCTAACCTTTTCTTTCTGCCATAATT
AACATATGTCCTTTTCAGTAAGTCCATGCCTCTGGCAGGGGATGAAAGAAGTACTCACTG
GGTAATTAGCTACCATCTTGCAGCACCTGGTAACTTGAAAAATTT

Sequence 15

TGCGGAGTCGACCCCGCGTCCGCCGAGCGGGGCGGCGCGGCTGGCGGGGCCGGCGGCGG
CTGAAGCGAGAGCGCGACGCGACGCGACCGCGGCTTCCCGAGCTGCGCCTGGCCGNCCAG
CGCCGCGGNCCGCCGAGGCCTGGAGGGGTCCGGGCCGCGCTCCATGGTCGCGGCGTCTC
GAGGCGGGGGACGCGCCCGCGCCCCCGGCCCTCCTNCGCCTCCTCCCGCGGGGCGGGCG
GCCTCCTCCGGCGCCTNCCCGCGCCCGCCCGCGNTCGCGCCGCTCCTCCTCCTCCTC
CCTGCGGCTCCCCGGCTTTCGGAGCCCGGGGGCGGCTGTGGCGCGCGGAGCCCGCGCC
GGACTGCGCCTNTTTGACCTTGAGGGGAAACATGCGTTTGCCNTGGATCGTTTGAAATT
CTGAGTTTGGGATCCCGNCCGGCCGNTGGCTTTTTCGCCCGCGGGTTTTTCTTTTT
TCCTTTTGCTTTTTTTTCTTCTT

Sequence 16

NGCCCCGCGTCCGTTTTAATTATTTTGTNGAGCCTGCANAGTAANGTTNTTAAAAATA
TAACGTTTCATACGCATTTTAATTAACCTTTGAAAGTTCATATGCATCAGAAAATTTATGAA
AATTTGAATGAAAAAATTTTCATCTATTTATTTTCTAATTTTAATGGCAAATTTACACT
ATTATGGCTGATAATTCTGTGAACCTTACCTTCTGTGACTGATTCTTTTCCCTTAATC

TABLE 1
4/467

CCAGCTTTAAGGAGATAGGTGAAGTTATTGTACAAAGTTAAGTGATACCATAAAGTATAT
ATTATAAAGTCATACATGGCTTTTGGACAGTNTTATATTTTCAGTTGCAGTGCTGCATTCC
ATTAAATTTCATAAAATGCTAGGGAAAAATGTGTTTGATAAAATTTTNTGCAGTGAGAAAT
GACAGACTGAGTGCCTGACAATTTAAGCCACATATGAAAGTATGCAAGTAAAGANTTCAG
GTCCTTAATGTCATCTATATCATGGTATAAAAG

Sequence 17

CCACGCGTCCGGACGAGACGAGCCACTAGTGTCCCCGAGCGGGCCCAACCCCGGACT
ACACCTTCCCGTCCGGGCTCGGGCGCTCACTTTCCGCAGGTGCCCGGGGGCGCGGTCCGAG
TGGCTGGCGGCGGGCCGGCTCGGGCCCTNTCCGCCGGGCTCGCCGGGCCACGACCGCTGA
GCGGCAGCCACTGTTGGATCGGGCCCGGGGCGCGNGGCCAGGGCCAGACCCAAACCGT
GGCGGCGCAGGCCAGGCTCTGGCCGTTCCANGCCNGGCGGCAGTCCACGCCGATCAGGC
CCACCGNGAGCGGAACGAG

Sequence 18

GGGAGTCGACCNCGCGTCCGGGCGGTGGGTGTCCGCTTCTCTCTGCTCTTCGACTGCACC
GCACTCGCGCGTGACCCTGACTCCCCCTAGTCAGCTCAGCGGTGCTGCCATGGCGTGCGG
GCGGCGCGAAGCCGGCGTCCGGGCTCGCGGCGTGTGGCTCTGGCGTTGCTCGCCCTGGC
CCTGTGCGTGCCCGGGGGCCCGGGGCGGGCTCTCGAGTGGTTCTCGGCCGTGGTAAACAT
CGAGTACGTGGACCCGACAGCAACCTGACGGTGTGGAGCGTCTCGGAGAGTGGCCGCTT
CGGCGACAGCTCGCCCAAGGAGGGCGCGCATGGCTTGGTGGGGCGTCCCGTGGGCGCCCG
GCGGAGACCTCGAGGGCTGCGCGCCCGACACGCGCTTTTTCTGTCGCCGAGCCCCGCGGC
CGAGGGGGCCCGCGCCCTTGGGTGCGCCCTGGTGGCTCGTGGGGGCTTGACCTTTAAGGAC
AAGGTGCTTGTGGCGGGCGCCGAGG

Sequence 19

NATGTNGNNCNAAAAAGGCCNCGNTTANAGGCCAGGAAACNCGTAAAAAGGGCNCGCGTT
GCTGTGCGTCTTTTCCATAGGCTCGCGNCCCCCTGACCNAGTCATCATAAAAATCCGA
CNGCTCAAGTCATGAGGTTGGCCGAAAACCTCCGACAGGGACTTNTAANAGNATACCCANG
GGCGNTTCCCCCTGGGAAGGCTCCCTTCGTGGCGCNTCTCNNTGTTTCCAGACCCCTGC
CCCGCTTACNCGGNATTACCTNCTCCCGCCNTTTTCTTCCCTTTCGNGGAAAGCGGT
NGGGCGCCTTCTCNTCAATTAGGCTTACCAGCCTGNTAANGGTATTCTCAAGTTNCGNT
GTANGGGTGCCGTTTTCGCTTCCAAAGNCTGGGGCCTTNTGTGCCACCGGAAACCCCCC

Sequence 20

TTCGGGAGTCGACCNCGCGTCCGCCTGGAGCCGCCAGAGTTTCCGCACCCGGGAGGGAGA
TGCGGCCGGGGCTCAGGCTCCTTGCAAGTTGTAATTTAGATTGAGAAGTGTTTATCCTT
TGACTGGAAAAGAAAAGTAGCTGCAGTATCCCCAGCACTTGCTGAGAGCATGCCGTAT
GCCAGGCTGTGAGGCTCGAGAGACAAGCAGTGGAAGAGTTGCGGCCTGTTTCATCTCTGG
ATTGTAAATCTGAGCCTCCTTCTGGCCCTGGAAGGGGACAGCATCACGATGGAATGATT
CCTAACCAGCATAATGCTGGAGCCGGGAGCCACCAACCTGCAGTTTTGAGAATGGCCGTG
TTGGACACTGATTTGGATCACATTCTCCATCTTCTGTTCTTCCCTCCATTCTGGGCTAAG
TTAGTAGTGGGATCGGTTGCCATTGTGTGTTTTGCACGCAGCTATGATGGAGACTTTGTC
TTTGATGACTCAGAAGCTATTGTAAACAATAAGG

Sequence 21

CGACCACGCGTCCGGCAGCCGCGGGGCGGGGCGGCGGGCGGCGGGCGGGCGGGCGGGGACCC
AGCGGGCCAGGTGGGGACGGCGCGGAGCGGGTGCGGGAGATGCCGTGCGGGACTGGGGCC
ACCTGAGCCGCCCGCCTCGTCCCCGCCTTCTGTGGGAAGGATGTGCGCGCGGATGGCCGG
TCGCACAACAGCGGCCCTCGGGGGCCCTACGGCCCTGGCTCTGCCTCCTGGTGGCCCT
CGCCCTGGACGTGCTGAGAGTGGACTGTGGCCAGGCTCCCTGGACCCTGTCTACCTGCC
GGCAGCCCTGGAGCTCCTAGACGCCCTGAACACTTCCGTGTGCAGCAGGTGGGCCACTA
CCCACCTGCCAACTCCTCTCTGAGCTCCCGATCTGAGACCTTTCTGCTCCTACAGCCCTG
GCCAAGGCCAGCCACTTCTCGGGCCTTCTACCCAA

Sequence 22

TABLE 1
5/467

CGCGTCCGCCCCGGTGCCTCCGCCCATGGAACGCGCGGAGTGGCGCCGCGCGGGCTACGCC
CCGCTGCTCTATCTGCAGTCACACTGCGACGTGCCAGCGGACCGGGACCGCTACGTGCGC
GAGCTCATGCGCCACATCCCGGTAGACTCCTACGGGAAATGCCTGCAGAATCGGGAGCTG
CCTACCGCGCGGCTACAGGACACAGCCACGGCCACCACCGAGGATCCAGAGCTCTTGGCT
TTCTTGTCCCGCTATAAGTTCCACTTGGCCCTGGAAAATGCCATCTGTAACGACTACATG
ACAGAAAACTGTGGCGTCCCATGCACCTGGGCCGCTGTGCCCGTGTACCGCGGTTCTCC
CTCTGTGAGGGACTGGATGCCGAACAATCACTCCGTCATCCTGATTGATGATTTTGAGTC
TCCTCAGAAGCTGGCAGAGTTTATTGACTTCTGGACAAGAATGATGAGGAGTATATGAA
ATACCTGGCATAACAAGCAACCT

Sequence 23

CGCGTCCGGCTGGGCGAATNAGGGATTCCGGTTCACAATGGATGCTGATAAAGAGAAAGA
TTTGAGAAATTTCTTAAAAATGTGGATGAAATCTCCAATTTAATTCAGGAGATGAATTC
TGATGACCCAGTTGTGCAACAGAAAGCTGTCTGGAGACAGAAAAGAGACTACTGCTTAT
GGAGGAAGACCAGGAGGAGGATGAATGCAGGACCACCTTGAACAAGACTATGATCAGTCC
TCCACAACTGCTCTGAAGAGTGCAGAAGAAATAAACTCAGAGGCCTTCTTGGCATCTGT
GGAGAAGGATGCAAAGGAACGAGCCAAGAGAAGAAGGGAAAAACAAAGTCTTGGCGGATGC
CCTAAAAGAAAAAGGGAATGAAGCATTGCTGAAGGCAATTATGAAACAGCTATCCTGCG
CTACAGTGAGGGGTTTGGAGAAGCTGAAGGACATGAAAGTGCTGTACACCAACCGAGCCC
AGGCTTATATGAAACTTGAGGA

Sequence 24

GGGAGTCGACCNCGCGTCCGCTCCCTCTGAGTTGCGCTGGGCTTGGCTGCTGCACCATGA
CCCTGGAGGCGATCCGCTACTCGCGGGGCTCCCTGCAGATCCTAGACCAGCTGCTGCTGC
CCAAGCAGAGCCGCTACGAGGCGGTGGGCTCGGTGCACCAGGCCTGGGAGGCCATCCGCG
CCATGAAGGTGCGGGGCGCCCCGGCCATAGCCCTGGTGGGCTGTCTCAGCCTCGCCGTGG
AGCTGCAGGCGGGCGCCGGGGGACCGGGACTCGCCGCGCTCGTGGCCTTCGTGCGCGACA
AGCTGAGCTTCTCTGTCACCGCCCGGCCACCGCTGTCAACATGGCCCGCGCCGCCCGCG
ACCTGGCTTGATGTTGCAGCCCGGGAGGCCGAACGGGAGGGGCGCTACGGAAGAGGCCGG
TCCGGGAGAGAGTGATCTGCTGCACCGAGGACATGCTGGAGAAAGACCTCAGAGACAACC
GAAGCATTG

Sequence 25

GGAGTCGACCNCGCGTCCGGGATAACGAAGCTGCTACCATGATGATGGCTGATCTCATGT
TCAGAAAAACAAGACTATGAACAAGCAGTGTTTCATTTACAGCAGCTTTTAGAACGTAAGC
CAGACTCCTCGAGTTCAGGGATCACACCATATTCCCAATATCAGACAAAATGCCACACAC
ATGGATGTGGCAACATAGATGTTTATTGGTTGAATGGATCAGTGAATGACTGTAACACAC
CAAGTCAATTAACAAACACAGCAGGAGAATCGCTTGAACCTGGGAGGTGGAGTTGCCGTG
AGCCAAGATCACACCACTGCACTCCAGCCTCGGTGACAGAGTGAGACTTGGTCTCAAAA
CAACCACAAAATTTTAAATAATTATATGACATTATCTCGTTTGATTGATCTCCTAAGAAG
ATGTGGAAAACCTCGA

Sequence 26

ACCGTCCGGGGCCATCCAGGAGAGCCTCCTACCAGCACAGAAGGCCTGTGCCCCAGCGCC
CTGAGCGAGACAAGCCGTTTTGATAATGACTTGACGCTAGCCATGGAGCTCTCTGCCAAA
GAGCTGGAGGAATGGGAGCTCCGGCTCCAGGAGGAAGAGGCTGAGCTCCAGCAAGTCTTA
CAGCTGTCACTCACTGACAAATAGACCTTTCAGCCTGTGAGCCTCTGCACAAAGCAGAGG
CTGTGGGCTGTACAGATGCTGTGTCAACCAGGGCCCTAGGGCTAAGGGCCTGCACCTTG
CGTGATGCAGCAGGCAACAACCTGCCCTTCTTTATGCAGAGGTGCAGAACCAGGGACTC
CTGGGCCCATCCAGGCTGCTTCCTTGGGGTGG

Sequence 27

NCCNCGCGTCCGGCCGGCGATGCCGCGCCCCGGGCGGGCTGTAGCGGGGCGCGGGCTG
GACGTGTGCGCCGGGCGAGGCGGGACATGGAGGTGGTGGACGAGACGGAGGCGCTGCAGCG
CTTCTTCGAAGGCCACGACATCAACGGTGCCCTGGAGCCCTCCAACATAGACACCAGCAT
CCTGGAGGAGTACATCAGCAAGGAGGATGCCTCCGACCTCACACTGCCGGACTCTCCCCC

TABLE 1

6/467

AGACTCGGGCTCCGAGGCCTACTCCCCCAGCAGGTGAATGAGCCCCACCTNCTGCGCAC
GATAACCCCTGAGACACTGTGCCACGTGGGGAGTGCCCTTC

Sequence 28

CGCGTCCGCNAGGGAGGGCCGAGCGAGGCGCAGGCAACCGGGCAGCAGGCATGATGCCCT
CGCCTAGTGA CTCCAGCCGCTCGCTGACCAGCCGGCCCAGCACCAGGGGCCTTACCCACC
TNCGCCTNCACCGACCCTGGCTGCAGGCCCTGCTTACGCTGGGGCTGGTCCAAGTGCTCC
TGGGCATACTGGTGGTCACCTTCAGCATGGTGGCCTCTCCGTACCACCACCGAGAGCA
TNAAGAGGTCCTGCCCCGTCTTGGG

Sequence 29

ACGCGTCCGATTTTAGTNGCAAGGAGTCCATGTGTTCAACTCCAGCATTTCTGTGTCTC
CAGAGACACCGTATGTGAAAACAGCGCTGCGCCATCCTCCGTTAGCCACCTGAGCCCC
CGCTGAGCAGCCCAGCCAGTCAGCACAAAGGAGGACGTGAACCACGAAGCTGCCCTGAGA
CGCTCACTCACGCTGTGGGGATGTCAGAGAGCCCCATCGGACCCAAATCCACGATGCTCC
GGGCTGATGCGTCTCGACGCCCTCCTTTCAGCAGGCTTTTGCTTCTTCTGCAACCATTT
CCAGCAACGGCCCTGGGCAGAGGAGAGAGAGCTCCTTCTTCTGCAGAACGCCAGTGGGTG
GAGAGCAGNCCCAAGCCCATGGGTTTCCCTGCTGG

Sequence 30

CCGGTTNCTGTNNGTTNATTGATTTAAAATAGAATATCAATTGAATTTAGAAAATTCTC
AAAAGCCAGTTTAATGCTGTTTCATCTTTTAAGGCCAAAAAAGTTTAATCCAGAGGCAGT
CTTTCATTCTGCACTAATTTATAATTTAGATCAAAGAACTAATTATATATCTCAAATTTA
ATAATAAAAAGGTATAGTAATGAGAAATTAATTTATGGTAAATTAATACTCAGAATGT
TAAAGTAACCTGGAAATTCCTAATCTAAGTTAAGTATCTTTTATTTCTTACTTGTCTCTG
TTTGATTTATTAAGGGAAAAGAAAATTTAAGGAGTTGCCAGTATTTCTTTGTCTATTGA
AAGTGGAATGTTTATTCACCCCTTATTTATATACTTAAAAGACATTGTATTGGCCTGGTCT
CGAACTCCTGACCTCAAAGGTGGATCCACCCACCTCGGCTTCCCAAAGTGCTGGGATTA

Sequence 31

GCCGGTGATTTTGAACAATTCTGAAATATTTAGGTAAGATTAATAACATCCAATTACAA
ATATATGTTTCAATATTTTATACGTATGTCTACTTTGAAAGTTAAACCAATAGTATAGAA
AGCCTAAGAATGAACACTGATTGGACATACTCACAGAAATTAAGGGAAAAACACATATTG
TAAAATTCCTGTCAATGTTTGAGTAGAATACAGAAGTACATAGCAGTCTTCAATTTTAA
ACACAATTATGGGCTTATAACTGGACGTGACATGCATCATTATTAGAACAATATTATTT
ATTTATACTAAGTAAGGATATAAGATCACAGAAGCTTAGTGTTATAACGGAGACTTCACA
GACATTCATACTAATGTTTTCTAAGGCCAAATAAGGGGCATAAACCAGAACTCATGGGTC
AGTGCCAGAGGTAAGTATAAAAAGGTTATGTATGAAAGACATTTATTTATAGGAGAATTT
CTGAGGGATTCTATGCCTTTTCAACTTA

Sequence 32

NCGTCCGGGAAACTGGTTCNGATGGTGTCTGCCAGGAGCGCCTGACACGCACCTTCACA
CGCAGCAGCCACACCTACACCCGCACGGAGCGCACGGAGATCAGCAAGACGCGGGGCGGG
GAGACAAAGCGCGAGGTGCGGGTGAGGAGTCCACCCAGGTGCGCGGGGACCCCTTCCCT
GCTGTGTTTGGGACTTCTGGGCCGGGAGCGCCTGGGATCCTTCGGCAGCATCACCCGG
CAGCAGGAGGGTGAGGCCAGCTCTCAGGACATGACTGCACAGGTGACCAGCCCATCGGGC
AAGGTGGAAGCCGCAGAGATCGTNGAGGGCGAGGACAGCGCCTACAGCGTGCGCTTTGTG
CCCCAGGAAATGGGGCCCCATACGGTCGCTGTCAAGTACCGTGGCCNGCACGTGCCCGGC
AGCCCTTTTCAGTTTACTGTGGGGCCGCTNNGTNGAAAGGTGGTGCCACAAGGTGCGGG
CCCGGAGGCAC

Sequence 33

CCGCGTCCGCAGGAAATTGTTAAAAATAATTTGGGGGTGTTTATTGGGGAAGGAAACAGG
GCCTTGACAGTGGAGGACTTGAAGACATGTAATTTAAGATATAGAGTATGATTGTTGGA
AAATAAGCATGGAGATCCAGAAGGAATCTTAAGAGTTTTTCTATGCAAGTGAAGATGGAA
GAAAATATGTATTTACAAAAGATAAATTACAAGTACCTTATTTGCTTTGCAAAATAACT
TATCATGTTCTTCCACTATTTTATTATATTTTAATTTAATGAACTTATATAACATTT

TABLE 1
7/467

ACACTAAATTTTAAATACATGGCTCAAGACAAAAAATGGGGAAAAATATTTTTAAAAA
TCACCCCAAACTCCTGGTACTCAGACATAACCACTATTCAAACCTGGCAGAGTAATATTT
TCCTGTCTGCATGTGTGCCACNATGTGTGCATGCATACCACAAAGTAGATGTTTTACTAT
ATCTCCTGGGTATTATCTGCTTTTTCCC

Sequence 34

ACGCGTCCGGGACAAGAGAAACATAAGCNGGAAAAAAGGAGGAGGAATAAACACACGCCT
GTCCATAATAAACTCGCTCTTGAAGACTCAGCGGCAGCCCTGCACCGGAGACTGACGAC
TTGCGCGGCTGTGACCTCCGCCCTGCAGCGGACCCCTCGACTGCCCTGCACTGCGGCTCTG
GAGGCCCCGACTCAGTGCATGGGAAAGAAATCCTCACTATCAGAAAACAGAGGGGCAATC
TGCTGCTCTCCCTTTCCGGGCAAAACACGTACCCATCAACCGGATACCTACCAAGAGGCT
TTCAGAGGAGGCGCCCAAGGTCTCCAGGCCCGCCCTCCCCAATCACGCTCCGCTCAGC
CCCCCAACTTTTGGCCTCCGGGAAGTTCGCGAGCGTNTCTCACGCTTGGCAGGAAGTTCC
CGCCAAGGCTTTCCGAAAAATCCTTTAAAAAGCAACGCTTGCCTGGGCGGGGCTTTGGTG

Sequence 35

CCCCGCGTCCGGTAGATTGCTTGTGGCTGGCAGTGAAGATGGTGGAGTTCAACTTTTTGA
TATAAGTGGGAGGGCTCCCCTCAGGCAGTTTGAAGGCCATACAAAGTAAGAGACAGTTGG
TTTCTGTGTGTTCTGGTTTTATTTGTTGTAAGCTCTTTTTCTCTGGACTTTGGTTAA
AAAGATAGAGATCAGTTTTATGGAGATTATTTGCCTATAGGTACTATATTTCTGATTGT
TCTAAGAGTGCTTAACTTGGGTTCCGTGGTCCAGTTTCATGGGGCTTATGAATTCCTAG
AATTGTATGTGATATTTAGGAAATACACGTTTATCTAGGGAGCTACTCTGTAGCTTTTG
GTTAACTTTAGTGGGGTCTGTGGCCAGCTGAGATTATGAATTACTGACCTGAAGACAAC
CTTACAGCTGGTAATGACAGCTCTATAGGCCTGTACTGTCTTAGAGGCTCTTATGTTGAA
GTCAAGTANGAAGGTGGATTTCTTCTTGAATTATAGTGTTTTGCCCTTAATAA

Sequence 36

CNCGCGTCCGGACGCGTGGGGGCGAGGGCCGCTGGGGCCGCGAAGTGGGGCGGCCGGG
TGGGCTACGAGCCGGTCTGGGCTGAGGGGCGCGGCTTCGCGGTGGACCCAGCCCGGCA
ACGGGAAGGCGAGCTCTCCTCCACCGTCCAAAGTAACTTTGCCGCTCCTTCGCGGGCGC
TCCCGAGTCTCGCCGCGCGGGGCCGCGCAGTCCGCGAAGAGCCGTCCTGCGTCAGGG
CCTCCTTCCCTGCCCGGGCGCGGGGCCACTGCGCCATGGACGCCACAGCACTGGAGCGGG
ACGCTGTGCAGTTCGCCCCTGTGGCGGTTACGCGCGACCACGAAGGCCGCTACTCCGAGG
CGGTGTTTTATTACAAGGAAGCTGCACAAGCCTTAATTTATGCTGAGATGGCAGGATCAA
GCCTAGAAAATATTCAAGAAAA

Sequence 37

GCGTCCGCGGACGCGTGGGCCGCCGCCGCCGCCGCCGCCGCGATGTGACCTTCAGGGCCG
CCAGGACGGGATGACCNAGGAGCCTCCGCCCGCGGNGCCGNGGCTCGCCTCGGCCTCCC
GGGCGCTCTGACCGCGGTTACCGGGCCCGCATGGCCCCCTTCTCTNCGCCGGGNC
ACGCTCGACCCTGCGCNCGTATCGCCAGCAAGTCTGCTGCCTGCATGCTGCNTGGCTCGC
GAGNNGTTGGCGCGCNTTGCNCTGNNGCCTGTTTGACGAGCNGCCGCCGAGGCCCACTG
CANGNTTANCTCGACGGTCTCCNAAGNCANACCGCNCNCCGCGNCCCTTTCAAAGNNTNT
TTCNCGAGGGGANGGGCNAAANGGCCAGGGNCCCCACNCNTGGGGAAGAAGGGNGGAG
TTNGNCNGATGNGNATGAGNAANCCTGTAGNCAAGANCCCGTCCCNAAAGNGNAGNGNC
AGCCCNNGGGGAAGGGTTGGTTTTCNANGNTAAACCGNAACCCCCCGGAAGTNAACCGG
NGATTTTAATTTATTTTACCCNCANANGNAAATAACCTTTNAANAACCATGGGNCATT
NNAAANCAAAAGNTAAATTNNGGGGNAACCTTAACCGNTAAACCANCCCCAAA

Sequence 38

CNCGCGTCCGGCGGGTCCCGCCGGCGGGTACCTGGGCACTGCGCCCCATCTGGACTGAAA
TGGGGACACCCCTTCGGGGGTCCCAGGCTCCTGGCCGTATTGTTCTCCTTCTCCTCGTGA
TAACTCCGCAGTGGAGGTGGATTCCGTCCAAGACGCCAACGTGGCTCCGCGTAGCAATC
AGCGCTGCAATCCTGGCGGTTACCTCAGCGGCGGCGTCTCTCTGCGCCTCACACTCGC
AGCCCGCGGCCCTCCCCAACTTAGGGCGTTTACAAAAGAACTACTCCAGACGCGCTGCA

TABLE 1
8/467

AAGGGAGGCGCATGTGCCCCGAAAGCTGGCGATCAGACGGGGGGGGGCATTCTGCATGTGT
GATGTTTCTGGGGGCGGTGGGGAGTGTGTGTCGGGGTCGGGGGGCGGG

Sequence 39

NTGGTCTTTCTTCCTAAGAAGGAGATGGAGCCAATTTCTCACAGCTCGTGCCTCAGTACT
GAGGGTATGGAGGAAAAGGCAGTCAGTCAGTGTCTAAAAATGACGCACGCAAGAGACGCT
CGGGGAAGATGTAGCTGGACCTCTGAGATTTACTTTTCTCAAGGTGGACAAGCTGTAGCC
ATCGGGCAATTTAAAGATCGAATTACAGGGTCCAACGATCCAGGTAATGCATCTATCACT
ATCTCGCATATGCAGCCAGCAGACAGTGGAAATTTACATCTGCGATGTTAACAACCCCCCA
GACTTTCTCGGCCAAAACCAAGGCATCCTCAACGTCAGTGTGTTAGTGAAACCTTCTAAG
CCCCTTGTAGCGTTCAAGGAAGACCAGAACTGGCCACACTATTTCCCTTTCTGTCTC
TCTGCGCTTGGAACACCTTCCCTGTGTACTACTGGCATAAACTTGAGGGAAGAGACATCG
TGCCAGTGNAAGAAAACCTCAACCCAACACCGGGAT

Sequence 40

CACCGNNCGCGCTCCTTCTGCCGCCAGGGCGAGGCTGGCACCCGGCCAGCGCGGGCAGGG
CCACGGGTGCCCGGCTGTTCCCGGTTGTGGAAGGCGCTCAAGGTGCGCGGCCCGGGGCG
CGCTACTGGGGGCGCCCTCCGCGGTGGGCAAGCGCGCCAGGGATCGGCCTGGGCANGCCG
CGGGGCGCGCAANGCTGCGCTTCCCTACGCCCCCCTCGCTTCTCCGGCACGGCGGC
AACGGAGATTTCTCTCGGGGAACTACGCGGATCCTTTTCGGGGATCCTCGCCCCGCC
CAATTTCTNCGCCCCCTCCCTTTGCTGGGGCGCCTGGGCTGGCCGCGCAGGGGA

Sequence 41

CNCGTCCGGTTCCTAACACAGACGAACTCAGCTTCCTTTGCCATGCCTCTGACTCGAGCC
AGCCTTTCTTTTATCCTCCGTTTTCTCAGATTCCTCCACACAGTCTTTTCCCAGGTC
TAGATCGCTTCCCTCGCCCCAATCTTCTGAACCCCTTTCCAGTGTCCCAAAGCTGT
CCACTCTTACGCCTCTTCCAGAAACACAGGCTACCTCCCCCAATTCCCAGTGCCACTC
TGGATTGTAATATCCCACTCAGGAGCTTCTTTCTTGAATTTCCCTCCCCCACCCCCA
CCCTCCCCGGGTGCTGTGTTTTCTTCTATGAAGCAAATATTACTCATCAAATATAGGAAC
AAAGGCCTAAGTCCTTTCTGNGCTTTATTTCTTNGGCTGACTGGATCTTAGATCCTATCA
TTTAAGTAGATGATGGT

Sequence 42

GGTGTGACCCNCGCGTCCGCGCTTCTCNCCTCGGCCCGTGGAGCCGGGGCGTCCGGGCGT
AGCCCTCGCTCGCCTGGGTGAGGGGTGCGCGTGGGGGAGGCAGAAGCCATGGATCCCG
GGCAGCAGCCGCGCCTCAACCGGCCCCCCAGGGCCAAGGGCAGGCCGCTTCGCAGCCC
CCGCAGGGGCGAGGGCCCGCGTCCGGACCCGGGCAACCGGCACCCGCGGCGACCCAGGGC
GCGCCGCGAGGCACCCCCCGCGGGCATCAGATCGTGCACGTCCGCGGGGACTCGGAGACC
GACCTGGAGGCGCTTCAACCGCGTCAATGAACCCCAAGACGGCCAACGTGCCCCAGAC
CGTGCCCATGAGGCTCCGGAAGCTGCCGACTCCTTCTTCAAGCCGCGGAGCCCAAATC
CCACTCCCGACAGGCCAGTACTGATGCAGGCACTGNAGGAGCCCTGACTCACAAGCATGT
TCGAGGCTCATTCTCTNCAGCTTCTTGCAGTTGGGAAGC

Sequence 43

GTCGACCACGCGTCCGGGAGCTGCGGCGCCCTCCCTTATCGCCTTGGCAACGACCCAGCC
GCGCCGCGAGGAGAACCAGGAATGGAGGTCGTGGCGTGAGGGGCGCCGAGCGAGGGGAGG
CGCGGGCCACGGGAGTTCCGGGAGTTCCGGCGTTGCCGGCAGTCCGCAGTCTCGGCGG
GAAGGCTGTCCCGGCGCCTCAGGCAGCTCTGCGTGGGCGGGGTGACTTCTCGCGATCC
CCTGCGCGAGGTGAAGGGCAGGGACCTTTGCCGCGCCTTCCACGCGCGTGGCCACCGG
CGAAGTGGGCTCCATCTTCTTCAAGACTTGTGCTTCCGCGGACAGGGCGCCCGTGGGTT
CTTCCCGGCCCTTCCGTACCGTCTCTTCAAGCGGGCTTCCGAAAAGCGGGTCTTGT
TCTTTCGGACGCATTTTACCCCGCGCCGGGGAGGAGCTTNCCGGGNAAGGGTCCACGG
CGGCCGAGGGTTTTCC

Sequence 44

CGTCCGCGAGACTCCCGCGCCACCAACCCCGGCGGAGCTGCTGCTGAGCCACTCAATCT
GAGCCCTGGCTACTAATAAAGTTCGTTTAAAAATCATAATCATTCTTAAGAGAGCGAAAG

TABLE 1

9/467

AGGGTGCGAACTAGCCGCTCGGCCCGCANGGAGAGCTGGCGCGTCNKGAGGAGACAGCN
GCGGCAGCGGTTGCGCCGCGACGAGGAGCCGGTGGCGCCGGGCGGCGGGTCCGCGGC
CGGTGGGGGACNGTAGTAGCGGCTCGCGCTCGGTGCAGCGGCGCTGCACTCACTCGCC
CTCTCCAGGGGCTGGGGGTTCTCGGCTCCACTGGGGAAGACTCAGCTTCTCCCCGGG
TCCCGGTTGTGCCTTACTCTCGGAGTGGGCAGGGGTATCGAGGCAGGGGCTCCCGG
CCCGGCTCCCCATCCCCGTTTCGGACCGACGAGCCCGCGGCTTCTTCCCTTCCCTGAG
CACCGATCCCAAGTTCCA

Sequence 45

TCACCACGCGTCCGGGCGTCCGGGTACCCGAGGGCTCTCCCGCGTTGCTGGCACCGCTGG
CGCCGCGGTCTCGTAGCGCATGGGCCTCCTCCGAGGCGGGCTCCCATGCGCTCGGGCCAT
GGCGCGCCTGGGCGCTGTGCGCTCCCACTACTGCGCCCTGCTGCTGGCCGCGGCGCTGGC
CGTCTGCGCCTTCTACTACCTCGGCTCAGGCCGGGAGACCTTCTCCAGCGCCACCAAGAG
GCTGAAGGAGGCCCGCGCCGGGGCTCCCGCGCGCCCTCGCCGCCGCGCTGGAGCTAGC
GCGGGGCTCCGTGGCGCCAGCCCCGGCGCGAAGGCCAAGAGCTTGGAGGGCGGCGGTGC
CGGGCCGGTGGACTACCACCTGCTGATGATGTTACCAAGGCGGAGCACAATGCCGCGCT
GCAGGCCAAGGCCCGCGTTCGCGCTTGCCTCA

Sequence 46

CCACGCGTCCGTGTCCGGCCGGCGCTCCCTTCTCTGCCNNGTGGCGAGTACACCTGCTCA
CGTAGGCGTCATGAGGTCTCCGTTTCGAGACCTGGCCCGGAACGATGGCGAGGAGAGCAC
GGACCGCACGCCTCTTCTACCGGGCGCCCCACGGGCCGAAGCCGCTCCAGTGTGCTGCTC
TGCTCGTTACAACCTTAGCAATTTTGGCCTTTTTTGGTTTCTTCATTGTGTATGCATTACG
TGTGAATCTGAGTGTTGCGTTAGTGATATGGTAGATTCAAATACAACCTTAGAAGATAA
TAGAACTTCCAAGGCGTGTCCAGAGCATTCTGCTCCATAAAAGTTCATCATAATCAAAC
GGGTAAGAAGTACCAATGGGATGCAGAACTCAAGGATGGATTCTCGGTTCTTTTTTTA
TGGCTACATCATCACAGATTCTGGAGGATATGTTGCCAGCAAAATAGGGGGGAAAAT
GCTGCTAGGATTTTGGGA

Sequence 47

CGCGTCCGCGGACGCGTGGGCGGGGCGCGGAGCCGGGCCGGGGCATGCGCCGTCTCCGN
CTCGGGGCCGNCGGGGGCGCCCTGCTGAGCGCTACCCACGTGCGTCCGCGCCACCTCGCG
GGCGACCCCGCGGCCAAGGCCCGCGGAGCGGNTCCCGGGCGCCCCGAAGTAGCCCCC
AATTTGGGCGAAGTTTGCCTGCGCCTCTCCCGCCCCCACGCGGCGCGCCGGGGCCGCG
GACGGNAGCGGCCCCCGGGGATGCGCCTTCCCGGGGTACCCCTGGCGCGCCCTGCGCTGC
TGCTGNTGCTGCCGNTGCTCGCGCGCTGATGGGAACGGGTGCGCGCGCCAGCTGCGGG
TCCGNGTGCGGCTCGCGGACGCGCCAGGTGACCGANGAGAGCCTGCAGGCGGACAGCGACG
CGGACAGCATCAAGNCTCGAGCTGCGCAAGCCNGACGGCACCCCTCNTNTTCTTNACCGCC
GACTTTAAGA

Sequence 48

GCGTCCGCTGCATTGCGCCCACCGACTCCACTATGTTGAAGAAATTCGACAAGAAGGATG
AGGAGTCAGGTGGAGGCTCCAACCCATTCCAGCACCTTGAGAAGAGTGCGGTACTCCAGG
AGGCCCCGTGATTTAATGAACTCCCATCAACCCTCGGAAATGTGCCACATCCTCACCA
AGATTCTTTATCTCATAAACCAGGGGGAGCACCTGGGGACCACGGAAGCGACCGAGGCCT
TCTTTGCCATGACCAAGCTCTTTCAGTCCAATGATCCACACTCCGTGCGATGTGCTACT
TGACCATCAAGGAGATGTCTTGATTGCAGAGGATGTCATCATTGTCACCAGCAGCCTAA
CAAAAGACATGACTGGGAAAGAAGACAACCTACCGGGGCCCGG

Sequence 49

ACGCGTCCGCAGAANGCTCTCAGATGGGACAGTCTTTTACTTTTATTCTCACCTCTGTAA
ATAGCAGGACAGGTTGGGGTGGGCCTGACTTCTATTCTGCTTTCAGGGGGTACTTACTGG
AAAATCAACTTAGGAAGTGAATTTGAGGGTTGGTGAATTTTAAGCCCAGCCTCTGATCC
TTGGTTGCACAAAGCCTAATTTCCAAATATTTCTAACAGATTCAAGACTGTATTGGCAA
GAGGTAGAGAGCTATGATAATGACATAAATTACATAAAAAATCCAGTTGAATGAATAAGAA
GGAATTTGGGCGTATAACCCATGGAACACCAATGGTGCTAAGAAATTTGCCAAACCCCTCAG

TABLE 1
10/467

CTTCGTATAAGTCCCAAAGAACTCAGGCTTATAGCACTAAGCAAATTACCAGTGGGAGGA
GGAGGACCTGCCACGGAGCTGGATAATTACATTTAAATATTTTGGCANTCTGTTGGAGA
C

Sequence 50

NCGCGTCCGGCAGGCGGGTCGTAGAGAGCGTTCANGCCGTCTGTATATCTCCCCAGATAC
CTGAAACTGACCACCTGAGTACGTTTTCCATTGCTGAGCTGTTTCCCTGATATCTGGCC
ATGCAACGGAGATCAAGAGGGATAAATACTGGACTTATTCTACTCCTTTCTCAAATCTTC
CATGTTGGGATCAACAATATTCCACCTGTCACCCTAGCAACTTTGGCCCTNAACATCTGG
TTCTTNTTGAACCCCTCANAAGCCACTGTATAGCTCCTGCCTTAGTGTGGAGAAGTGTTAC
CAGCAAAAAGACTGGCAGCGTTTACTGCTCTCTCCCTTCACCATGCTGATGATTGGCAT
TTGTATTTCAATATGGCATCCATGCTCTGGAAGGAATAAATCTAGAAAAGAACTGGG
AAGTAGAT

Sequence 51

GCGTCCGGAAGGTCCTTGAGCCATCTGGATGGCGGGCAGTCTGGCACACTAATGTGTTCA
AGGTGCTGGTTGAGATCACAGATGTGGACTTTGCAGCCTTGAAGGCAGTGGTGAGGCTTG
CTGAACCATACTCTGTGACTCTCAAGTGAGCACTTTTACCATGGAGTGCATGAAGGAGC
TCCTTGATCTGAAGGAGCATCGGTTGCCCTGCAGGAGCTGTGGGTGGTGTGATGATT
CAGGA

Sequence 52

GTCGACCNCGCGTCCGGAATAAATAATGACCCAGAGATATTAACAACCTTGACCTGGTTA
TACAGTTAGATATTTGCACAGTCTGGACTCAAACCTGGAGGCTTCTGACTCCTCATCTAGG
CTCCTCTCACTCTGCCATTGCATGGGTTTTCTCATATACCTTCTCTCATAAGGTTTTAC
AAATTTGTCAACCGTCAAATAATTATCAAAATTTATTCACACTATTATAGATGAAAATAATG
TGCTTATAAAGATTAAGTAACCTTCTGAGGGCGCAGGTATCTGGTTCACATAACAACCTA
GCCTGGCTTAGAATAAACACATATTTCTGGTTCTGAAGTTGGTGTCTTCTTCTACCACTT
TCTGCTGTCTCTAAAGATAAAGAATGTTATTGGCTCACTGAATTAATCCATTCTGTTCC
TGGCTGAAATAAAAATTGGTATATTCCTTACGTGAAGTGCAACAGGAAGGGGGCTTTTA
CAACTTCCTTT

Sequence 53

GGAGTCNCCACGCGTCCGCGCGCTGGAGGAGTGGAGCAGCACCCGGCCGGCCCTGGGGGC
TGACAGTCGGCAAAGTTTGGCCCGAAGAGGAAGTGGTCTCAAACCCCGGCAGGTGGCGAC
CAGGCCAGACCAGGGGCGCTCGCTGCCTGCGGGCGGGCTGTAGGCGAGGGCGCGCCCCAG
TGCCGAGACCCGGGGCTTCAGGAGCCGCGCCCCGGGAGAGAAGAGTGCGGCGGCGGACGGA
GAAAACAACCTCCAAAGTTGGCGAAAGGCACCGCCCTACTCCCGGGCTGCCGCCGCTCC
CCGCCCCAGCCCTGGCATCCAGAGTACGGGTGAGCCCGGGGCCATGGAGCCCCCTGGG
GAGGCGGCACACAGGGAGCCTGGGCGCCCGGGGCTCCGCCGCAOCCCATCGGGCTAGACCA
CAGAAGCTCCGGGACCCCTCCGGCACCTCTGGACAGCCCAGGATGCTGTTGGCCACCCTC
CTNCTCTTCTCTTGGAGGGCGCTCTGGCCCATCAGACCGGATTATTTTTTCAA

Sequence 54

CNCCCGTCCGGAATNCCCATAGTTAGCTGCTGTGCTTTCACTACTTCTTTCTGTAAAT
TCCTCGCTTGGCNCTGAGAAGGAAAAAGATGTTGTAAGGGCTCAGCGAGGAATTTAC
AGAGAAAGAAGTTGTGAACACCACATAGTTAGTTGCTGTGCTTTGAATTTCTTTGCTCA
AATGGCCTCAGCGAAATCTTATTTGCCTATAGCATATCTACAAAAATTTCTTAGACCG
TCTTTTCTACAACCTGGATGGTAAAGTTGATTGAAGTGTGCCTCATGTAGCTTTATGTTG
GGGCATTTGAAGGGCTATGGCTGGACCAGAGTGTAAATATAAATGCTTAATAGAGAGGGGA
AAAGAAGAGTGTAAAGAACCATATAGGGCTGGGCTCACGCCTGTAAATCCAGCATTTTGG
GAGGCTGAGGCAGGCGGATCACGAGGTCAGGAGTTCNAGACCAGCCTGACCAACATGGTG
AAACCCCATCTCTCTAAAAATACAAAAAT

Sequence 55

GTCGACCNCGCGTCCGCGAGCCTTCGGCTGCGGAGGGGGCTCGGCGGCGGGCCGGCGGAGAA
AGTTGCTCCGAGAAGAGGCTGGGTGAGCTGGGCCGAGCCGGGCGCGCAGGGCGGGCGCTC

TABLE 1
11/467

GCGGGCGTCCCGGGCGGACGCGGCGCGGAGACTGCCGGCGCGTCCCGGGGGTTCCGATTT
GAAGACCTTGCTTCTCATCACCCACTGGATTATGCCCCAGGCTTTCCTACCCAATGATCC
TCTTGCAACACGCCGTGCTTCTCCACCTAAGCAGCCCTCACCTCGCCTCCTATGTCAG
TGGCCACCAGGTCTACAGGAACCTTGACGCTTCCACCACAGAAGCCTTTTGGGCAGGAGG
CTTCCTTGCTTCTTGACGGGGAAGAAGAGTTATCGAAGGGAGGGGAGCAAGGACTGTGCC
CTGGAGGAGCTATGTAAGCCCCTGTAAGTCAAACTCTGCAATGTACCTTGAAGTCTGCA
CAGCAAGCCCAGGCTCATTATCANGGTAATAATCATGGTAAGAAA

Sequence 56

ACCNCGCGTCCGGACCTGTTGGCGACATGGTGGCACCCGTGCTGGAGACTTCTCACGTGT
TTTGCTGCCCAAACCGGGTGCGGGGAGTCTGAACTGGAGCTCTGGGCCAGAGGACTTC
TGGCCTTTGGCACGTCTGCTCCGTGGTGCTCTATGACCCCTGAAAAGGGTTGTTGTTA
CCAACCTGAATGGTCACACCGCCCGAGTCAATTGCATACAGTGGATTTGTAAACAGGATG
GCTCCCCTTCTACTGAATTAGTTTCTGGAGGATCTGATAATCAAGTGATTCACTGGGAAA
TAGAGGATAATCAGCTTTTAAAGCAGTGCATCTTCAAGGCCATGAAGGACCTGTTTATG
CGGTGCATGCTGTTTACCAGAGGAGGACATCAAGATCCTGCATTATGTACACTGATCGTT
TCTGCAGCTGCAGATTCTGCTGTTGACTCTGGTCTAAAAAGGGTCCAGAAAGTAATGTG
CCTTCAAACCTTAACTTTGGAA

Sequence 57

GTCGACCACGCGTCCGTCTCATTTGTGAAGAGGTCTGTCTTCTGAGGAAGCAGGGGACC
CTCACCTGTGAACCAAGTGTGCCATGGGAGCTGCTCCATGTCCAGGTCCAGGTCTCCTGG
TCTGCAGGGAACGGCACAAGAGGGGCTGGCCTAGGCCAGGAGGATGTGATCTGTCTAGAA
GGGGGCTGACCTGCTTGCTGACCCCGCTTGCTGCTGCCTGGCTGACCTGACTCAGCCACG
GCTGTTCCGAGGGGCCCTTCTGAGTACGAACTTCCAGTTGGAGGATCTGGGTGAAGACCCA
GCTGCTTGAGATAGCAGCCTCTGGCTAGGCCCTTGGCGTGGCCAAGCCAATCAGGCAGGT
TTAGAGCCTGGTGGCCCTAGACAGGTCTGCAACCAAGAACAGGGGGTAGCCTTCAAAGG
CCAGCCCTGCCTTCCAACACCGCTCCACAGCGAGGGAAACCAAGGCTCTTAGGGCAGGA
GGCTTGT

Sequence 58

CCNCGCGTCCGGGGAGCAGGGATCAACGGTGGTCCCCGTAAACCTGACAGTAAACCTGAC
AGAGGCTGCAGGAGTGCATTTCCACCCAGGGTGCCTCAGCGAGTGGAACCTCCACACCCG
TTTCTTTGGAGTCAAGGCGCGACCTCTCAGGGAGGAGACTGCTCCTGGTTGCCCACTGCC
GGGTCACTCCAGCTTGACGTGGAACCCCTCCGCAGCCTGGCCTCTTCCAGGGTAGCCCTC
ACTCCCCTCTCTTGTCTAGGATAAGGCCGAGGAAGGCTGACGAGTTCCAGCTCTGGG
GATGCCCTATCAGCTGTGTACCTTGAACAAATCATTTCTCCTCTTGGGTCTCTGTTTCC
TCCAGTGTGAAACGTGGTGAAGGCATGAGGGGCTATGGGAGCCCCAAGGCCTCTTTCAGA
GATCTCCTCTGGGTCCCATGTGACCCCGTGGCTATCCCCAAGGCAAGAGGGTCCCCAGC
CCTGCACCAAGGCCCTGGG

Sequence 59

CCGAGGAAAGGAGTTGGTTCGCGCAGGTGCGGCGCCTGGGTCCCCATGGCGCTGTGGCGC
GGCTCCGCGTACGCGGGCTTCTGGCGCTGGCCGTGGGCTGCGTCTTCTGCTGGAGCCA
GAGCTGCCAGGCTCGGCGCTGCGCTCTCTTGAGCTCGCTGTGTCTGGGGCCCCGCGCCT
GCGCCCCCGGAGCCCGTCTCCCCGAGGGCCGTTGGCGGCAGCCTGGGACGCGCTTATC
GTGCGGCCAGTCCGGCGCTGGCGCCGCTGGCAGTGGGGTGAGTGCCAACGGGGCCTGGG
TCTNTGAGCCTCCGAGGTGGCCTTGAGGTGCGGCGGAGCCGCGCAGAAACAGGGCTTC
TCAGAGGNCCCCGGGAGGCGCTTGCTGTCCGCGCTGGCCCC

Sequence 60

CGCGTCCGGTGGGAAGCCAGAAGATAAAACCAAATGGCTGGGCACGTCTTTAGGTTATTC
CTAGCTAAGAGTTAAGAGTTGTAAGCTCTCTCATTTCTTGTCTTACGCTTAAACTATC
TTTCCTTCTATTAACCTTTATTTGTCTCAGTTACAATGATAGAGGTAACCTCACATACTAA
AAGAAATTAGGTTACCATGTGAAACATTCTTCTTGGCTTGCTAATGTTATCAGATCCA
AACAGCATCTGAAAGAAAATTTCCAAGTACGATGTTGTTCTCTTGTCTTCTGAAATACA

TABLE 1
12/467

TATCATATGTTAAAGTGAGAGTTTTTATACATGTTGAAAGAAGTTGAATGACATAACAAA
TAGTTACTGAGGCCTCCATTTTCTTACTTCACAGTTAAAATTCCTGTTTCTCTTTGGGTA
TAGGAGGGTAGAAAGAAGTGGGAGAGTAATAGCATTTTAAAACACAGAATCAAAAATCAT
ATTAAAAGTAG

Sequence 61

CGTCCGGAGCATCGCGCACTGCGGCCGGGTACCGACGTGGGCATCCGCTACGTGGCCAA
GTACTGCAGCAATGCTGCGCTACCTCAACGCGAGGGGCTGCGAGGGCATCACGGACCACG
GTGTGGAGTACCTCGCCAAGAACTGCACCAAACCTCAAATCCCTGGATATCGGCAAATGCC
CTTTGGTATCCGACACGGGCCTGGAGTGCCTGGCCCTGAACTGCTTCAACCTCAAGCGGC
TCAGCCTCAAGTCTGCGAGAGCATCACCGGCCAGGGCTTGCAGATCGTGGCCGCCAACT
GCTTTGACCTCCAGACGCTGAATGTCCAGGACTGCGAGGTCTCCGTGGAGGCCCTGCGCT
TTGTCAAACGCCACTGCAAGCGCTGCGTCATCGAGCACACCAACCCGGCTTTCTTCTGAA
GGGACAGAGTTCATCCGGCGTTGTATTACACAAACCTGAACAAAGCAAATTTTTTAAA
AGCAGCGTATGTAAAGCACCGACACCCACTCAAACAAGCTCTTCTTTTNGGAAGGGTA
TTAAGGAAT

Sequence 62

NCCACGCGTCCGCCAGNCTGTGAAGGATCCCAGACTGGCATATGCAGGAGGAAATGGGGC
GGGCGAGGAGTAAGGACCCCAAAAAGCAGGGGTAGGGAAGGGCCCTCCAGCGCCCCACT
GTAATAGGGGCCTCATCAATGCCCATGCTCACTGAATAAAGCACTGCCAGCGAAAGGTG
AAAAGAGGAACAAAGAACATTCTCCTGGACGCCACCCACAGAAAGCCACGTGCAGGCTTG
GCCCTCACCTTGGGGACCTTGGACACGGAGCTGGTTATGTCACATCTGGCTCTCAGAGCT
GGGGCAGCGTCTAGGAGGCCTGATGTAGAAAGCACTCAGCTAAGCCCTAGTTACCGGCAC
ACGGGCACCAGCGCCCCCTCTCAGCAAACCTTNCAGTCTTATGAAATTAGCACTGGATT
CCACTTCAATTGGA

Sequence 63

CCCACTGTAATAGGGGCCTCATCAATGCCCCATGCTCACTGAATAAAGCACTGCCAGCGA
AAGGTGAAAAGAGGAACAAAGAACATTNTCCTGGACGCCACCCACAGAAAGCCACNTGCA
GGCTTGGCCCTCACCTTGGGGACCTTGGACACGGAGCTGGTTATGTCACATCTGGCTCTC
AGAGCTGGGGCAGCTGTCTAGGAGGCCTGATGTAGAAAGCACTCAGCTAAGCCCTATTTA
CCGGCACACGGGCACCGCCCCCTNTCAGCAAACCTCCACGTNTTATGAAATTAGCACT
GGATTTCACCTTCAATTGGA

Sequence 64

NCGCGTCCGCTTCATCTTAGGATAAAGTCTAAATCTTTGTTTTTGTATTGTACTAAAC
TCATAAATCCTAGGTTATAAAGATAAAGCCTTAAACTTTATCTCATCATCCAGCCCAATT
TCCAGCCACAATGAAGTACTTAAACTCTGTGTCTTTGTACTTGCTGTTCTCTTGGCCTC
CAATTCCTTTTCATCTTTTCCATTTCGGTAAAGTTTGTATCCACAGGCCCTATCTTGG
AAGCCTCCAGCAACTTCTCCAGACAGAGGTGTTAGCAGTGTAGGATCAGATTTCTCAACC
ACGTCACTCCCATGTCTGGGTAGATATCTCTGCCCAAGTGTCTCATAGCACTTGAGCAG
TACTCTCTAAGCGCCCAGGATCTACCATGTTGCTTTTTTAAATTTGATTAATTTATTTT
TTTATACTGCTCCTTGTGGAGCANGGAGTGTCCAGAGTAGCCACCATGTTATATTGA
ATGGATCTGTGTGCATAATGCAGCTGTCCATCTACATCGTATATTTTGTCTCCTCAAGG
GTAGGGA

Sequence 65

GTTTGTATTCTGGATACAGGGGATACTGGGGCTCGCTATGTGTGTGGAGCCATCCCTTCC
TTGCCCCAGCCCCACCTCCCTCTCAAACCTCTCTGGCTCTTTCTGAGCTTCCTTTCCTG
CTCCCCAGCTTGCCCAAGTGTCTAGTCCCCACTTGGCTCTTTTGTACTTCGGGTCAAGT
GGAGCCTCTTGGGAATGTGAAGTGCCTTACAGAAAGATTGCACTTCAAGAGGAGAGGCTG
CAGGGAGCCATCCTAAACCCAGAGGCCTGGAGCTTACCGTGTCACTTTACTTTTGTACAC
AGGGGTCTCCTTAGTGCCCTCGAGAAGGATTCTTGGCCCTGAGCTTCTACTCCTGAGGCC
ACCTCTGTGCAGCCCCAGCTCCCTCAACTCTAGGCTGTAGTCTCAGTGGGAAAGCCTGGC
TTGGGGGTCTCCTAGGAATGTCCACCTGAAGGCACACTTGATAGGGGCTTGCACAACTTA

TABLE 1
13/467

TGTCGCCAAGGCCACCTGAGGAACTCCTGGTGCCTATAAGTTCCACCTTCCCTTCCTTT
NCT

Sequence 66

CGTTCCGGCAGCAGCAGCTGGCGGCCAACCGGCACAGCCTGGTGGAGAAGCTGGGGGAGCT
GGTGGCGGGTGCCACGCACTGGGTGAGGGCCAGTCCCCTTCCCCACTGCTCTGTCGGC
CACCCACCGAGGAGACGCCACCCACCCAGCCGNCACCAGCGACCCCCGGCCGA
AGACATGCTGGTGGCCATCCGGCGTGGGGTCCGGCTCCGCAGGACCGTCACCAACGACAG
GTCGGCGCCCCGCATCTTATGATGGCGCCACCCTCCCCTCCTCTCAGGCCCCAGTGCGA
GCAGGTGGCCTGGTCTGTGAGCCGACGCACTCAGAGCAAAGGCCAGCCAGGAGAGAGG
ACAGAGCCAGGGCAGAGGCCATGCCACTTTATGGAAAGACACCTCACTTGGATTCCAGCA
TTTAAACAGGAAGTGACTTCTTAGCAAGCCTGGCCAGGACGAGCCTGCAGGCCTGGGCC
TGGTTCCGGGGTCTGTTTTATGCTCTTCGGTCCCTTCTCTTCTCTGCGGCCCTGCCT
CTTCTACCCATAAAGCACCAAACCAGGGCCGCTGCCATGACAGAGGGGCCAGGCTGGC
CTTCTTTTACATCCCGGCTNTTCCAAGGCTGGTCTGCCTNACTTCTTCTGGAATGTG
GGCCCCCTCTCCCTTGCTGACCCCTCTTCTNTTGTNTNTTGTCTTCCANGCCCT

Sequence 67

CGCGTCCGGCAACCTAAAAATAGGATGCACCAATAGCATGTGGTTCCAAGTAAGTTGTGA
TTTTATTTTGTAGACAGTGTCCACTGGAAGGGAGGGAAGGGCTTACATTCACAGACAGT
AAAGCAGGGCTGTGTAAGGAGCTACATTTACTTAACAGTCTCCTTCCAGCTAGGTTTGT
TTTATTTATTTGCAAGTCAGCTAAGAATTAACCTTTTAAACCATCTAAACAGGCAAGCA
ATATAAAGATTTCTACTAGTGCAAGGTAAGTGGTTTGAATATACAAGTGCCCTTTCCTGC
CACCCAGTCTCACTACCGTTTTAGTCCTGCAGCTGGGTAAAGCCACTATTGTGTGGAAAC
TCTCCCATGTGCCCTGTCTCTACCTCTGGACACACCAGCTCCTTCTTCCACCTATTCTAT
TCCTCAGTTAAGCCAAGTGATCAGAAGTAGTATTAATGGGTAGATAATTTTA

Sequence 68

GCCACGCGTCCGGCGCCGGGTGCGCCAACCTACGCAAAGACCAAGCGGGCTCCGCGCGGAC
CGGCCGCGGGGCTAGGGACCCGGCTTTGGCCTTCAGGCTCCCTAGCAGCGGGGAAAAGGA
ATTGCTGCCCGGAGTTTCTGCGGAGGTGGAGGGAGATCAGGAAACGGCTTCTTCTCACT
TCGCGCGCTGGTGAAGTGTGCGGGGAGATTGGCAAACGCCTAGGAAAGGACTGGGGAAAATA
GCCCTGGGAAAGTGGAGAAGGTGATCAGGAGGCCGGTCCACTACGGCAGTTTATCTGTCT
GATCAGAGCCAGACGCGACGCGTCCACTTCGCAGTTCTTCCAGGTGTGGGGACCGCAGG
ACAGACGGCCGATCCCGCCGCTCCGTACCAGCACTCCAGGGAGAGTCAGCCTCGCTCC
CCAACGTCGAGGGCGCTCTGGCCACGAAAAGTTCCTGTCACTGTGATTCTCAATTCCTGC
NTGGGTTTTTTT

Sequence 69

ACCCANACCTGGGAGGAATTAATGGAATGCTTGNCCCTGGGCAGCCTTAGAAAACAGACCC
NAGCTTATCTAANGCTGCTCCGAGGCAGTGACCAACTANGGCTCAGGAAGTCAAGAANA
TTGACCAAGCTTATAGTGATCACCTCTTGACCTTTGTGTACAGTCNTTTTGCTTTTTAA
AACCTTTTGTGAACCGNTTATGGCCTTTGATTCTGACAGGCATCNTAGTTGTGAAGGGG
AACANGGGCAGGATATAATGTTTCGTTTACCAAATACAANAAAATCNGANGTACCCAGNT
AGATCACAANATTTTTTGGGAGAAGGNCTNTTGGGTCTCTTCCAGGAGNTCACTTCANNN
TTGGNAACCTTGACAGGGGCTTGGGGAATTTANTATCCCTTGGGCGCAGGGNCNCAAAN
GGGTGGCANTTTCCCTCCTTGGAGNTTTTTTTTCAAGAANTCCTTGCNTNGGGGAAAGA
TGGTTACNANNATCCCGGAATTTCCAACCCCTTCCCTATTTTTTTGGTTTAAGG

Sequence 70

CGCGTCCGGCACATTAAAAAAAATACTTATTTTTTATTATGGAAAGGTCTTGGAACATT
CTGATAGTGAGCTTCCGGCATTCAATTTGCTGTATCTGGCTTAGGAGATGCTAGGGTGGCA
AGAAGAGGCACAGGCTTAGATGCGCTGGGTGGAGAGTTGGCTTAGTAATGATGGTTGAC
TCTAACGACTTGATTATCAGCTGTGCCTTTTTTCTTCTGCCTTCTGAGGTGTGTTGCCT
GCATCCTAATTCACGTACTGAGTAGCAAGCTAAGCAGGTTGTAGCTGGAGATTGTAAGAA
ATCCTGAATGGAAACCAAAGAAAGACTGTCACATCACATGATGTGCCCTTTTCAATCCCA

TABLE 1
14/467

TGTCTCTTCCAGTGGCATCCAGTGCTGTCTCTGCCCCCTGCTGCTTCTGTAAAGATTT
TCTGACACAAGTAACTGCCTCATAGACCTTCCTTTTTATGAAATCCTGAGTTTTGGTTTG
GGTACGTCCTTTTAGAT

Sequence 71

GCGCGGCTGTGCGAGGGCGGGGGTCTGGGGCTGCAGGCGGGGCAGGGCTGGGTGGGGGCG
CGCGACGCACCTGCCTGCTTCCTGCACGGGTGGNCCCCAAGCACTGCGGGGCCCCAGCCC
AAAGCGGACCTTGA

Sequence 72

CGCCCCGCGTCCGGGGCGGCTGGTGGGCGACCGGGCGCATCCTCATTGCATGTGCGGCGGC
CCTACCTCGGCCCTGGCCTGACCCGGCGGCCCTGCCCGCCCCTCCCTCCAGCATCATGG
CCAGCCCCAAGAACCAGGAAGTTCTTAAAGAAGTCAGGGTGCAGGATGAGAACAACGTTT
GTTTTGAGTGTGGCGCGTTCAATCCTCAGTGGGTGAGTGTGACCTACGGCATCTGGATCT
GCCTGGAGTGCTCGGGGAGACACCGCGGGCTTGGGGTTCACCTCAGCTTTGTGCGCTCTG
TTACTATGGACAAGTGGAAGGACATTGAGCTTGAGAAGATGAAAGCTGGTGGAATGCTA
AGTTCGAGAGTTCCTGGAGTCTCAGGAGGATTACCGATCCTTGCTGGTCCTTGCAGGG
AGAAGTA

Sequence 73

GCCCCGCNTCCGGAAATGTCCGATTTTTTTTTAATTTAATGAAATTGTTAATGAGGAAAA
ATTTTTAATATAGGTCTTATCTACCACACATCCCATAGATTTAAGGATTTAATAGAAA
GTCATGATGTATGTATTTAAGCCACGTTAAAAGAAAAAATAAATATGGACCGGTATTC
AGTGAATACAGTTTCATGGTTTTTAATTCCTTCAAAGCACATTAATAATGGTGTGCTGAT
AAACCCCAAGTAAATTAACCTTTTTCCGTATAAATCCATTTTTGTTTTGAAGAGGGGA
AATTATATTTATTGNTGTTTACTGAATCCTGGTGTGAAAGCATATCAGATATGTATGAAC
TGCTACTGCTGTACTTCCGATTTACGGACATCATTTTATTGCTATTTGTAGACCGTGATA
ACATGAACATGAGTCCTATTTATGTGGGCCTTCAGTGGATGGGCAGTGCCACTCANGTCT
CTGGGGGTTTTCTCTCTTAATTTAAAGTAA

Sequence 74

AGTCGCCNCGCGTCCGTGTGTTTCTCCTCGGTCCCCAACTCTACCTTCCCCAACCACAGT
TCCTGTCCCAGATGTCCTGATGCCACCATGGCAGGGGAGCCCAATAGACTCCCAGGAA
CTTCAAGGAGTGTCCAGCAGTTTCTGGCTATGTGTGACAGGGGTGAACTTCCCCAAGGGG
CCAAGTACACAGGAAGGACTTTGAACTACCAGAGCCTCCCCATCGCTCCAGAACAGACA
ACTCCTGGGCACCCTGGTCAGAGACCAACCAGCATATTGGGACCAGATTCTGACTACTC
CAGGGTGCAATCCTCAACTAACCTACACTGCCACACTACCAGAAAGAAGCAAGGGCCTTC
AGGTTCTCACACTCAGTCCTGGAGTGGATCTTTTCATTACCCCTNCCACCCTNCCATT
GNTCATCCTGTGTACCCACCATCTAAGCAGTCTTCATGTACCCCTGAGGTCAAGCTTGA
A

Sequence 75

CCCGCGTCCGGGCTGGCATGGCTCTATATAAGATTGTTGCANAAANTCCCTACTACTTTT
GGTCTGTGATGAGCTTAATTATGCAATCTATATNGGCACAGGATGAAAACCTCTCAAAAA
CAATGTTTCTGCCCTTGCTGAGAGAATGGTCGAAAAAATGGTGAAAGAGGACAAGATAG
AAGCTGAGGCTGAAGTTGAACTTTATTATATGATCCTGGAACGTTTGGGAAAGTACCAGG
AGGCCTTGGATGTCATCAGAGGGAAATTAGGAGAGAAGTTGACAAGTGAGATTCACAGTC
GGGAAAATAAATGCATGGCTATNTACAANAAGCTGAGCAGGTGGCCAGAGTGCAATGCC
TTNCCGGCGCCTCTTACT

Sequence 76

GNTGGAGGGAGCTTTGCTACTCTGCTCTTGGCATGACTCCAGGATTTTTTCTGGAATCC
AACCTCTGTCTCTTAGGAGAAGGAACCTGTCTTGGTTGAGATGGCTGGGCATGAGGAG
GAAAATTTCCATTAGTGTAGAAAAGTGCTGGACAGAATCCGGTTTGGAAAATTACAAATC
CAGTTGGTCAAAATAGGCCATTTCTATGTGTGACCTATTCTGTTGATGCCAACTGGACT
GCTTCCTAAACAGGACGAGGAAAGTGAGGAATATTTTTATATGAAAGCCTTAGCCTGTCT
GGCACCCATGAAAAAACTATTTATGCACTCCTACTTTCACCCGTCTTTTGCATTCTCT

TABLE 1
15/467

ATTTGTAGCACAAACAGAGTTGAATGCCACAAAACACCCCGTTTATAGTGAGCTGTTTTCA
GTGACCAATATCAGAAGGAGGCTTGCTTCTGGACTAGCCTACTAATTGCCAGCAGCCACC
ATTTTTCATG

Sequence 77

GGAGAGTGCCTTGCCGGACCCTCAGGACGGAGCTGCTGGGCTGCTACAGTGACCAGGACT
TTCTGGCCAAGCTGCACTGTGTGCGGCAGGCCTTCGAGGGGCTTCTGGAAGACAAGAGTA
ACCAGCTTTTCTTCGGGAAAGTGGGCCGACAGATGGTGACAGGCCTGATGACCAAGGCTG
AGAAGAGCCCCAAAGGCTTCCTGGAGAGCTACGAGGAGATGCTGAGCTATGCCCTGCGGC
CCGAGACCTGGGCCACAACACGGCTGGAGCTGGAGGGCCGAGGGGTGGTATGCATGAGCT
TCTTCGACATCGTGCTGGACTTCATCCTCATGGACGCCTTCGAGGACCTGGAGAACCCTC
CGGCCTCGGTGCTTGCCGTCCTGCGGAACCGCTGGCTGTCANACAGCTTCAAGGAGACGG
CCTTGCCACTGCTTGCTGGTCGGTCCTGAAAG

Sequence 78

CACGCGTCCGGAACGTGATTTCTCAGCCGAATGAGTTTGAACATACCCACAGGAAGA
TGACTTGGGGTTCAAGGAAGAAGATTTGGCTCCAGATCATGAAGTAGGAAATGCCTCTCT
CAAACCTGAAGGCATCCAGAACTGGGATGACTTATGGGTCCAGAGAGAGGGTCTAGGAAA
GCCTCAGCCTCGGGACAGAGGCCCGGCTCCTGGGTGAACCACGCTGGGGCCAGGCTAG
TAGTGATCGGGCCGCTGTGTGTGGTGAAGTGTGGCAAAGCTTCAGGCAGATGTCAGATCT
GGTGAAACACCAGCGGACCCACACAGGGGAGAAACCCTACAAGTGTGGGGTCTGTGGCAA
GGGCTTTGGGGATAGCTCTGC

Sequence 79

CGCGTCCGCAAGAAGATAACCCCAAACCTCTTTTCTCAGAGAGTTTGTAGCCTAGTTTGGG
ATAGATAAGATCCACATATTTAGTCATATAAGACTACAGGAGAGTAGAATAGATGCACCA
GATGGTGTCTGAATGAAAGTGGTACTTTGTAGACTATAAGTGTGTAAATTCTAAAGGACA
GGTTACTTTTGCCTGGAGTGGTCAAGAAAGATTTTATTTAAATAAGGATTTGACGGGCA
GACTTAGCAGTCAAAAGGGAGAAAGCGGGTAAACAAATGTAAGCCATCATAAGAGTGCA
TGTGGTTTGAAGCATCAGGGAAAAGACTAGCCAACCTGAAGTAAAGGTTCTGTGCAAT
TGGGCAATCAATAGCATTAAAGTTGGAACAGCTTGGGGACAGACACATAAGAGGGCCAGA
GTGTGAATAATTTATCTAATACTTTATAGCACTTGGACATTTACAGAGCACTTTTCTC

Sequence 80

TNCTCTCTGCCCCCCCACATTCGTCTCTTGATTCTCTGCTTCTCTAGCTCAGCCGCTGA
CCTTCGTGCCTAGCCGCCACTAGTCCTTGACCAGCGTTCTGGCAACTCTTGCCCTCAAGT
TCTTCAGCTCCAGGCTGAGCCGATGGGGATTGAGTTTCTGACATCAGAGCTNAGTTCT
TGATTTCTGCAGCAAAACCTTCAAGGCTTCCATCACCTCGGCTCTAGAGTCCATCATGCT
CCTCTCCTATGACCTGCTAGGGCTGATCAAACGTTCTGTCTCCTGCCGTGCCCTGCCCTG
CCCTGCCCTGAGCTTCGCTTAGCCTGTTGCAGGCTTTGTGTTTTCTTCTTGCTGTTG
GACCACGCAGCTCCTTCTACCCATAAAACCCCTTCTCTAGGTCGGTGGAATCTTGGTC
ATCCTTCCGTGTCTAGNTAACTGGNACCTCCTCCAGAAAGCCTTCTAAAACTCCTT
CTCAGGGGAAGTGGTTTTCTTCT

Sequence 81

CACGCGTCCGCAAAATAGCCCCACATCCNGGCAAAAGGGGCCTTTCCCTTGGCCCAGAAG
AAAAAGGAACAAGTGGAGTGCAGAAGAAATCTGTACTGAGAGACTTGGGCCTAGCTTGT
CTTCCAGTGAGCCAACCAAGGCTGGTGCTGTCCCATCCAGTCCCTCGACGCCAGCACCAC
CCAGCGCCAAACTTGCCGAGGACTCAGCTCTGCAGGGTGTGCCCTCTCTGGTGGCAGGTG
GAAGTCCACAGACTCTTCAGCCGGTATCCAGCAGTCACGTGGCTAAAGCTCCAGTCTGA
CCTTCGCTTCCCCCGCCAGTCCTGTCTGCGCATCAGACAGCACTCTCCATGGGTAGAGA
GCAACTCTCCCTTTTCAACCTGTCCGCTAATTATAGCTCACCTTTATGGGCTGCAGAGC
ACCTCTGCCGCAGCCAGATATCTTTTTCAGAGCAGCGGCAGAGCAAACATAGGCGCTTTC
AGAATACCCTAGTAGTCCTACATAAAATCTGGGTTGCTGGAGATCACTTTTGAAACCAA

G

Sequence 82

TABLE 1

16/467

ACGCGTCCGCACCCCTGTGTCCAATGACATGTGCACCCAGGTCCGCAAGCGGCCTGTGGA
CACCCAGGCCTGTAACCAGCAGCTGTGTGTGGAGTGGGCCTTCTCCAGCTGGGGCCAGTG
CAATGGGCCTTGCATCGGGCCTCACCTAGCTGTGCAACACAGACAAGTCTTCTGCCAGAC
ACGGGATGGCATCACCTTACCATCAGAGCAGTGCAGTGCTCTTCCGAGGCCTGTGAGCAC
CCAGAACTGCTGGTCAGAGGCCTGCAGTGTACACTGGAGAGTCAGCCTGTGGACCCTGTG
CACAGCTACCTGTGGCAACTACGGCTTCCAGTCCCGGCGTGTGGAGTGTGTGCATGCCCG
CACCAACAAGGCAGTGCCTGAGCACCTGTGCTCCTGGGGGCCCGGCCT

Sequence 83

CCCCGCGTCCGCTCTTACGCATTACTCTATGTCTACTGTTATGGGTGTGTAATTTTATAC
CATAGATGTTTACTCTTTAAACAGACACTTCTAGTCTGTTTTATTTTCATGTGTCTGGGAG
CGGATAAAGTGTGAGGTTGAGGGAGAAAGAGAGGTCTGTCTCAATGCCTTGGCACGGCAT
GAAGACAATCTCCCTCCTTGTCCCTTTCCCTGCTAGCTCCTGATGACTGACAGATTCA
CAGCAGAACAGAAAGGACTGGGAAGGGATGGAGGTGGGACATCTGGCACTGACCTTCAGG
GGCTGACCCTGTGGGGGAACATCTGCCCTGAAGAGTTGGAGCCTTCATGTGATGACACAG
AGCTGAAGTGTGATATTCGGGAGGGGATAGAGAGTGCTTGGAGGTTTTCTGATTTTGAAG
AATCCCAAGTCAGTC

Sequence 84

GTCCGGCCGCTTCCGGTCTCCCTCCCGGGCCGGCGCTGGCCTGACTGCGGCCCGGTCCG
TAGCACTCCGCCCTCCGCTTCTCCCGCCCTGTAGCCGCGAAGACTGCTTCAGCCTTTCCC
TGTGCTGCCCTGCCGCGGATGGAGACGAGCTCGAGCTGCGAGAGTCTTGGCTCCCAGC
CGGCGGCCGCTCGGCCGCCAGCGTGGACTCCTTGTCCAGTTAATGTGTTAAGAGCCATT
GACATTTGAAGATCATCAGAAGTGAAGATAAAACATCTCAAAAATTATAATTGCCTCCAC
TTCTCATTGAGAAATTCAGTGCATACAAAATCAGCTTCTGTTGTATCATCAGATTCCAT
TTCAACTTCTGCCGACAACCTTTTCTCCTGATTTGAGGCCCATGCAGTCCAGTTCGGGAGC
TAAGT

Sequence 85

CCGCGTCCGCGTGAGGTGTGGGTGTTTCGTTTCTCAGGTAAAACATGGCTAAAAGCTTACG
GAGTAAGGTGGAAGAAAGATGCGTGCTGAAAAGAGAAAAAGAATGCCCCAAAGGAGG
CCAGCAGGCTTAAAGTATTCTCAAACCTAGACGGTGATGTTTTAATGAAAGATGTTCAAG
AGATAGCAACTGTGGTGGTACCCAAACCCAAACATTGCCAAGAGAAAAATGCAATGTGAGG
TAAAAGATGAAAAAGATGACATGAAAATGGAGACTGATATTAAGAGAACAAAAAGACTCT
TNTAGACCAGCATGGACNGTCCCAATTTGGNTGAACCCAAAGGCAAANAAAAANGNTTGT
ANGGCCAAACCGANNGAAAAAAAANGGGGAAAACCAACCNAANCCCTTAAANGGGCCA
ANGGGGTTTGGCCNCTGNNAATNNTTTNAACCCNTTTGAAAACCCCCCTGGNNGANACC
NCCCGTAAAAAATNTCCCCCNNTTTTTTTTTT

Sequence 86

CCACCGCCGTCCGAGGAGGGATCACCAAGCCGTGGGCCATGAAAGTCGGGGGGGGGCACC
GCAAGCTTGAAAGCTTCATCATTGACCTTTCNCAAGAAATACCGGGGCCAAGGCCGCTT
GTTTCNAAAACCCCCATGGAAACNAAAACGANGGGGAGGCANGGGAGAACCACCCCTTG
GACTTTTTTTTINATTTCTTCTTGGACCTACGAAGGAGGGGCACAAATTGCCGGGAAGAT
GCTTGCTTTTCCACCTTGGGACAAGGGGATCCTGGGACTTTTCCGGCCCGGGGTCCCNT
TCCCGTTGGCCCGGCAAGGGATTGGGTCNAAACAATTGACCCAAGGGAAGATCCCCGGG
GACGGTCACAACCGGGGNACCAAGGNAAAGCTTTTTTGGGANGGGAACCTTTTTTTTA
ATT

Sequence 87

CCGGGTCCCTCCCTGCGGAGCCGCTGGTCCGGCTGGCGGAGATGTGACCGCGGGCCCGGC
CGGCCTGCCTCAGGCGTCGCGTCAGCTCCCGTGTCCGTGCCCTTAACCCACACCGATGGC
GGGATCCGGCTGCGCCTGGGGCGCGGAGCCGCGCGTCTTCTGGAGGCCTTCGGGCGGCT
GTGGCAGGTACAGAACCCGCTGGGTAGCGGCTCCTTCNCTTCGGGGTATTCGGGTTTCG
CTTGTTGGGGAACCTTGTTGGCCCCCGGGGCCCTTAAANCAGTTNTTGCCGCCAGAAA
CCACCGGGGTTGCGGCCTTGCCGCCNAGTATGNTTCCGAAAAAAGGGCCGGGCTTG

TABLE 1
17/467

NACAAGTTGCANGGGTCACAAAAACATCGTGAATTTTGATNGGAGTGGTTACAATCCAC
Sequence 88

CGTCCGTTTAATTATAACCTAGATTGTCTGGGCAACGGCAGGAACGGAGTGCCACTGTGG
AGCAGATAACTGCAGTGGTTTTCTAGGAGTGCGGCCAAAGTCGGCATGTGCGTCAACAAA
TGAAGAGAAGGCCAAAAAATGCTAAGTTAAACAGAAGAGACGAAAGATCAAAACAGAACC
AAAGCAGATGCATGAAGATTACTGTTTTCAATGTGGAGATGGTGGAGAGCTGGTCATGTG
TGACAAAAAAGACTGTCCCAAAGCATACCACCTCCTATGCCTTAACCTGACTCAGCCACC
ATATGGAAAGTGGGAGTGTCCGTGGCATCAGTGCGATGAGTGCAGCAGTGCAGCTGTTTC
CTTCTGTGAATTCTGTCCACATTCATTTTGTAAGATCATGAAAAGGGGGCCCTGGTTCC
CTCTGCACTGGAAGGCCCGCCTCTGCTCGGAACATGACCCCATGGCTCCTGTGTAC
CAGAATACTGGAGCAAGATAAAATGTAA

Sequence 89

NGTCGCCCCGCGTCCGTAAAATGTTAAGTCCCCTAAAAGTGAATAAATTTTAAATACCTA
CTTTTAAAAATACTGTCTTCTAAATTGACATAATTGCTTTTCTTACCAAAGAGAGAG
GTTCCCTAATTCTTTTGGGCCATAGATCCGCTTTTAGGATCTGATTAAAGATGTGGAC
TTTACCAGCAGGAAGATACCCATGGGCACACCATTCAAATGTATCAGATTTCAACGGTT
TTACAAACTCCCCCGGGATTAAGTCAAATGGGTGGATATTACAGCTGTTTTCATCAGATA
TGTTATTTTGTGACAACCATCAGGACAACAATGTTTATAGATGGAAGGATAACTTCCTG
GTTTTTTTCCACATTGAATGTGGCTAGTTACATATCTCAATTTAAATAAATTGTGGAAA
GCCAAAAAAGTATGGTCAAGCTAACCTTGGGGTGGCTTTACCTGATGCCTACAAGCACA
GAAAAATAGTTTTTAA

Sequence 90

CCGCGTCCGATTATGCCAAGAGAAGGTATTACTTTAAGATGTGAAAAATGTAAAATGGAA
AATTACATTACTAAGAAAAACAAAAAACACAACTGNNAATAGAAANTGAAAAACAT
TGCCACAAATGCAACGCACATACAAGTCATAAGAAAAAAAATAATTTAAATGAATAGA
AATATTTAAGACTTAAGCTTTGAAGAACACAATTTAGATGCAATAATTTCATTTTCTCA
ACAAACAAGATTATGAGTTTCTAATCTTCAAACAAGTGATGGAATAGTGTTTCTTGAAAA
AGAAGAAATCCATTTATTTGTTGATTCAAGATATATAGAAGCTGCTCAAAAAGATGCAAA
AATGTACAAGTTCATTTATTGACAGCAGCTAATTTAAAGATTTTGTAAGTAGTAAAAA
TTACTTAAAAATTGGTGTTGAAAAAGAATACTTAACCTTAGCTGATTTTAAAAAACTTCA
AGCTTGATTTCCAAGTGCAGAATTTGTCAAATCAATGCGCAAAAATTAAGACTTATTA

Sequence 91

CCGTTGTCCCATATATCTTGTTCAGCAGCCATATATCTTGNGGTCTACACGCCTAAAGC
ATGATTTCCCTTGAAGTCTTGGGGTTGNTTAAAGGAGAGTCCCTTCAATATAAACCTCT
GAAATATTAGTGAGAATGGCTCACTAATGTGAACAATGTTTAAATTATTTATTTATAT
AGAATTACTGAATATTAGTACTGGGAAAATTTATAGAAATCATCTAGTCTTACCCTTCAT
CTTACATATAAGAAAAATGGTCTTTTCTTCTAATCACATTTACAAAATATGATATAAAC
TTGACCATGAATGTATGAGCCTAATTAGAGAAACAGAAAATCAGCATGTCAGTTTTCTT
CATTCAAATAACATAGTCTTTCTAAGCAGTCATTCTGGGAG

Sequence 92

ACCACGCGTCCGCAAGGCCCGCCCTTACGTAAGTCCGAGCTCGGATCCAGTGTGGACCT
GGACTCGAATCCCGTTGCCGACTCGCGCTCTCGGCTTCTGCTCCGGGGCTTCTTCCCTGC
CCGCCCCGGGGCCCTGACCGTGGCTTCTTCCCCGGCCTGATCTGCGCAGCCCGGCGGGCGC
CCAGAAGGAGCAGGCGGCGCGGGGGCGCGCTGGGCGGGGGAGGCGTGGCCGGAGCTGCGG
CGGCAAGCGGGCTGGGACTGCTCGGCCGCTCCTGCCCGGCGAGCAGCTCAGACCATGTC
GCCTGAAGAATGGACGTATCTAGTGGTTCTTCTTATCTCCATCCCCATCGGCTTCTCTT
TAAGAAAGCCGCTCCTGGGCTGAAGAGATGGGGAGCAGCCCGCTGTGGGCCTGGGGCTCA
CCCTGTTACCTGTGGCCCCCACACTTTGCATTCTCTGGTCACCATCCTCGGGACCTGGG

Sequence 93

NCGCGTCCGCCAAGATGGCGTCCNTCATGGAAGGGCCGCTGAGCAAATGGACTAACGTGA

TABLE 1
18/467

TGAAGGGCTGGCAGTACCGTTGGTTCGTGCTGGACTACAATGCAGGACTGCTCTCCTACT
ACACGTCCAAGGACAAAATGATGAGAGGCTCTCGCAGAGGATGTGTTAGACTCAGAGGAG
CTGTGATTGGTATAGACGATGAGGACGACAGCACCTTCACAATAACTGTTGATCAGAAAA
CCTTCCATTTCCAGGCCCGTGATGCTGNTGAGCGAGAGAAGNGGA

Sequence 94

ACGCGTCCGCGGACGCGTGGGTGCGGGCCGCGCCNCCCTGGACGAAAGAAGAGGGGCCCTC
CAGGCCAGTCTGGGCACCCTGGGATAGCGGCTGCAGCCAGGCATGGCCGACTCTGCACAG
GCCAGAAGCTGGTGTACCTGGTACAGGGGGCTGTGGCTTCCTGGGAGAGCACGTGGTG
CGAATGCTGCTGCAGCGGGAGCCCCGGCTCGGGAGCTGCGGGTCTTTGACCAACACCTG
GGTCCCTGGCTGGAGGAGCTGAAGACAGGGCCTGTGAGGGTGAAGTCCATCCAGGGGGAC
GTGACCCAGGCCCATGAGGTGGCAGCAGCTGTGGCCGGAGCC

Sequence 95

CCCCGCGTCCGAGGTGACCTCCTTGGCCCAGATCATCTTAGAGCCAAGAAGCAGGACCAT
TCGTGGTTTTGAGGCCCTGATTGAAAGAGAGTGGCTGCAGGCTGGTCACCCATTCCAGCA
GCGCTGTGCACAGTCAGCCTACTGTAACACCAAGCAGAAGTGGGAGGCTCCTGTATTTCT
TCTCTTCTGGACTGCGTGTGGCAGATCCTTCGTCAGTTTCCCTGTTCTTTGAGTTTAA
TGAGAATTTCTCATCATGCTCTTGAGCATGCTTATGCCTCACAGTTTGAACATTTCT
GGGCAACAATGAAAGTGAAGATGTAAGTTGAAGCTACAGCAGAAGACGATGTCTTTGTG
GTCCTGGGTTAATCAGCCCAGTGAGCTGAGTAAATTCACCAATCCCCTCTTTGAAGCCAA
CAACCTTGTCTGTGCTTCCAGTTGCTCCGCAGAGTCTTCCACTGTGGGAAGGTATTTT
CCTACGTTGGAATAGATCCTCTAAGTATTTGGATGAAGCATATGAAGAAATGGTTAACAT
CATTGAATATAATAAAGAATT

Sequence 96

CCGCGTCCGGTTTNCCTGTTGGTTAGGCTGGTCTTGAACCTCCTGACCTCACGATCTACCC
ACCTTGGCCTCCCAAAGTGCTGGGATTACAGGCCTGAGCCACTGCACCAGGCCACCCTG
TCTCTATTTTCTAAAATAATAAATCTGATTTTAATGTGGCTGGATATAAATCATATCACA
GTTGGATTTGGAAGTTTGGGTTTTATTCCTAACTTTGATGGGAAGCCATTTTAAGCAGAA
AGATGATTTTAAAAGACCACTATATTTCTGTGTGAAGAATGAAGTGGGAGATTTTCATAG
TATTATTAACAAAAATAGAAATAGTTGGGGATCTGGTTTGGCTTGGGAAATGGAGGAAGTT
CAACTTTGGGCATGCTCCATTTGCATTGCCAAGACATTGCAGCAATTGGAAGTGCAGTCA
GAGAGCTTAGGAGAAACACTTGGCAGATGGACATAGAGAAGTAGTACTCAAAGCTTGTGG
ACATTGATTAATAATCATACAGGAGTATGGGCTGACAAAAGATTNCAAAGAGAAAACCT

Sequence 97

GTCNCCACGCGTCCGGGACTCTCGGCCCTGGAGAAGGAGGTGGACTTTGACTCCGACCCC
ATGGAGGAGTGCTGCGGATCTTCAACGAGTCCACCAGCGTCAAGACGGAGGACAGAGGC
CGGCTGGCCCGGCAGCCCCCAAGGAAAAGAGTGAGGAGAAGGGGCTTTGCGGTCTGACC
ACTCTGTTCCCCGGGCAGAAGAGGAGGATCTCCACCTTTCCAAGCAAGGCCAGGAGGTG
GAGCCCCGAGGAGGGGTCCCGCGGTGCCCCGGCCCCGACGGCGCAGGAGGTG
TGCTACCTGCGGGCCAGCAGGCGCAGAGGGCATCGGCGAGCTTGCTGCAGGCCCCCGCC
AGGCTGGCAGAGAAGTCGCCCTNCGTCCACATTTCCCGCCCCTGGCGAGAA

Sequence 98

CGCCNCGCGTCCGGCAAAGCAAAGGGGAAATTATTTGGTGGATGGTAGCTCAAAATTGGA
ACTCTTGTCTAATTCAGTTACATTGGCTTTACCCTCCTTAGATTTTTCATCAAAGGGCT
GTCCCATTCGAATCTTACTAAAACATTTTGTAAAATAAACTCTTTTCTTTTATATTA
ATAATTAGGCTTTTAAATAAAGATGTTATTCCTTTAAATGGTGGGCTTACCATCATTGA
AGATGTCACTCAGGTGGCCTTGCTTGATCAAAACGCCTTTTTTAAAAACCAAGCTTTAAA
AACATGTTTATAATTTTCATGAAGTACATATATATTGTTCCCATAGTCTTCAGCTTTAAAA
CTATAAATATGCCCAAATTTTGTATTTGCCCTACTTTAAGTAGGTTTATTGNGTTTGT
TTTTTCAAGTACTTGTTTTCTCTGATAAGACTCAGGAATTCTGAAATGTGAAATGNCT
CAATT

Sequence 99

TABLE 1
19/467

CNCGCGTCCGAAATCGTTGCTACCAANTATTCAAACCCCTTTGAGTTTACATACTAGTTA
CCTTAAAAATTANTNCCTGACNCTCNTGANTTTGGNGGAAAGCCCTTGNTCINNCTCTC
TNATGNACTCTCATGGGTTTTTTGTATGATTTGAATATNAATGTGCCTAAAGAATTTTT
GCTCTCTTAATCTATGNATACATACTTGAACAAATCATTCTTGCTTAACTGCTGATCTTT
TGTAACCACTATTG

Sequence 100

GCCCCGCGTCCGGCTGGAAGCAACAGTTTGGCAGCCTGGGGTACACTCAGGTTATTCGTT
ACAACTATTATTATTTGATGTCTTTTTTAACTCAGGTCATCCACTTTTGACTGTCATC
CATGGAAGAGCTCTTATTAAGCAGGCTCAGACTTTCCGGACCTATGATCTTTGGCACAAC
CTTTTGGAAAATTCTTAAGCAGGGATGAAGCAAACCTTGATTGGAGTTGGGGAAAAAGAAG
ACAGATTAGTATTTTTCATGCTGACAAAAATAGCTGCTATGACTTTTCCCGCAACGTGG
ACAGGGGCCAAGTGAAGCTGAAGTGGTCTGTCGCCAGTGTTCCCTTGTCGTCG
GCGATTTTGGCCCCGACCTTCTTGGTGGGCTTAGTGGTGGCAATCTGTCTCTTCTACCA
GACTCTGACCCTCCGAGGGTCGAGGAAGCTCACAGCCGCTGCCCTGGGGCTGTCCACA
CACATCCACTGAAA

Sequence 101

CCACGCGTCCGGGCGTCTCGGCTCTTCTGTATCTCCCTGGCCTGGTCGCTCTCGGCTTCT
GGGCTCGCCCTTCTGTCTGTGAAATGGAATCTGGGTGAATCCAAATGGGATCGTCTCG
GGCTACGTCCTGTCCCTCCGGGACTACAAGTCCCAAGGTGCTCGAGGCGACCTTGGCTCC
CCCTCCCCACCGGGACCCGCTCCCTCCAGCCCAAGTCACGTCGTCTAACCTGTTCCAG
CTCCTGCCCCGCCCCGTTCTCCGCTCCCCAAGCCGGAGCCCGAGCTGGAGGAAGCCCCCA
GGTGCCAGGATCTGCTCGGATCCGNGCCCGCTCCGGCCGGCACCATGGACAGTGAGGCAT
TCCAGAGCGCGCGGGACTTTNTGGACATGAACTTTCAGTCGCTGGCCATGAAACACATGG
ATCTGAAGCAGATG

Sequence 102

CCACGCGTCCGGTCCGGGGTGAATCACGTCGCTGCGGCTGCCGACGACCCACACCCGGC
CGGCCGCTCCGCAGACCCACCTTGGCCGCGCGGCAGGGGGCGCGCAGAGCCCCGAGGGA
GCGAGTCCCCGCGCGTGGCAGCTCGGCGGCTTCTCCCTTCGGGAGGTCCGGCTCCCGGT
CTCCGACCCGCTGGCGTCTCGCTGCGGCGGGGCGGACGACAGCGGCGCCAGGAAT
GGCTTCGGCGGGCAGCGGCATGGAGGAGGTGCGCGTGTGCGGTGCTGACCCCTTGAAGCT
GGTCCGGCTGGTGTGCATCTTCTGGCGCTGTGTCTGGACCTGGGGGCGGTGCTGAGCCC
GGCCTGGGTACAGCTGACCACCAGTACTACCTTGTGCTTGTGGGGAGTCTGCCGAAA
CCCGCCAGCTTGGACATCTGGCACTGTGAGTCCACGCTCANCAANCGATTGGCAGATTG
C

Sequence 103

NCGCGTCCGAGAAATTGCAATTTTTTAATTTTAAATTTAAGAGGAATTCGTGCCAGAGA
GAACTATTAAGAAAGGGGTATATCCAGTCTAAGGATTATTAGGCTCAAGTCCATGAATAG
GCTCTGGGAAGTTTGTAACACTTGGAATTTATTTGCAAAATGTGTGTGTGAATGTGCTT
TACCTTANAGAGTTCATGAATTTTATTAGATTGTTGAAAGAGTTTTAGTATTAACAAAGG
AAAAACAAACCACCACCATCACATAACAAACCACAACAGTGATTTAATCTTTTACCTA
ACAATAAGTAAATTGAGGCTCTGATGGCTAAATTAATAGCCTGAGGCTACACAGTCAGTG
GCAGAGCCCAGGGTANAGAGAGAACCAGCACAGCCATTGTGGGAGCCGAGGGTAAAGAG
AGAGCTAGGTGTTGTACCTTAGTAAATAAATCAGAA

Sequence 104

GNGTCGCCCCGCGTCCGGAAGGTGGAGACCGCTTACCCTGATCNGGGATGTATCGGCTGC
GGGTGCGCAAGGCAGTCCAGGAGTGACCTGGGGCTGTGGAGAGCGACCCGTGGCCTTGTG
TTTCAGAGTTTACCACCTAGGATGACTTCAGTGACTAGATCAGAGATCATAGATGAAAAA
GGACCAGTGATGTCTAAGACTCATGATCATCAATTGGAATCAAGTCTCAGTCCTGTGGAA
GTGTTTGCTAAAACATCTGCCTCCCTGGAGATGAATCAAGGCGTTTCAGAGGAAAGAATT
CACCTTGGCTCTAGCCCTAAAAAAGGGGGAAATTGTGATCTCAGCCACCAGGAAAGACTT
CAGTCCGAAGTCCCTTCAATTTGTCTCCTCAAGAACAATCTGCCAGTTATCAAGACAGGAG

TABLE 1
20/467

GCAATCCTGGCGGCGAGCAAGTATGAAAGAAACGAACCGGCGGAAGTCGCTGCATCCCAT
TCA

Sequence 105

CGTCCGCGCAGCGCTTGAATCCCGTGGCCTAACCGTCCCTCGGAAGACCGGTCCCGCTCG
GGAGGCTCTGCAGTCGCGCTGGGGTCAGGGCCGGGGCGAATGTGGCTCGCGTTCTAGG
CCTCCCTGGGTTGGAAAAAGACTATGTTAGCAANGTGTACGCCATGCTTTTGCCAACTT
TCCAATTAAGGTTGACATTCCCTGCATAAGCATTTCTCTGTGAAAATGTCCTTGCCTCTT
ACAGAGGAGCAGAGGAAAAAGATTGAAGAGAATCGACAAAAGGCTCTGGCCCGCAGAGCT
GAGAAGTTATTGGCAGAACAGCATCAGAGGACTAGCTCGGGCACCTCCATTGCTGGCAAC
CCATTCCAGGCCAAGCAAGGCCCATCCCAAAATTTCCCAAGGGGAGTCTTGTAAGGCCAA
GTGAGCCATTGGTGTCAATTTCAAGCAACAGAATCTCAGTAGCTCATCTAATGCTGACCA
AAGACCTCATGATTCCACAGTTTTCANGCAANGGGAATATGGAAA

Sequence 106

CCGGCCCTATCCCTATATTGTTTGCTTGTTGGGATAACCTAAAATTTTTATCCAGTTT
ACTACTAATTTGTTTTACCTGATGTATCTTCTTTCAATAATTTTATGTTACCTTCTGT
TTAGAATAATATTTGCCACAGATATTTAGGTTTAATTCTGTGTTTGAATGATTCCAATGC
CTTTCTCTACCCACTTTGAACACTTCATCCTGGAATGGTTGGCTGATGTATGTCTCTAAA
CAATTTTTTTTTTAGGAGAAGGTATGTGGGTAATGTAATTCCTAAACCTTTGCTTTTCTG
AAAAATCTTTCAATTTGCCTTTATACATGACCAGATTTACTGGGTATATAGATTTGTTGAT
GAAAAAAGGTAAAAAGAGCAACTTTTGACATCCAGAGGTTTGTCTGGCACTCACAGCTAG
CCCCGTGTTATTCTCCCTATT

Sequence 107

GCGTCCGTCTNAACCCTAAAGCTAAAAAGTCATTGTGAACCTTTNNGGTCTGATGCTAAAG
AAGGGAAAACAGGTACAGGAAATCCCATGTGGATGCTTGCTTNCAGGATTTCTGCCATG
ATTCCAGAATCCCACAGCTNCAACATGATTGCAAAAAGACTCCCTGCTCATTTTNCCTCA
GCATGCACAGCGCTGTCTGTCTCAGTTGCAACTCGACAGAGCCGCATTTACTCCAGAAC
CCAATCCACACACCTGCTCATCCTGCCCGAGAGGAGTGCCTGAAGCCAATAGCAGGGAA
CTAGAGCAGACTTGGGTGGATCTTCATTGGATATTAGGTATCTTGCCCTAGATAGGCAAG
CAGTGGCCTTACAGATGCTGACAGATGATCTGATTAGATGCACAGNTGCTGGGTGGCGTC
TGGGGCCAGTCTATTGGNCAGTTCTGGGAGNNGGGAAGTATTGGGCTCTGCAAAGATG

Sequence 108

CGTCCGCTCCCTGGCCCTGCTCCGGGAGCTGTGCTTGTCTCCGCCAGCAGCCCTGTGGCT
GCAGGAGCGCCAGGCCAGCTTCGCCACTCGCTGCCCTGCAGAGCTTCCTGCTGAAACC
TGTCCAGCGCATTCTCAAGTACCATCTGCTGCTGCAGGAAGTGGGAAGCACTGGGCGGA
GGGCCCAGGCACTGGGGGTCGCGAGATGGTGGAGGAAGCTATTGTGTCCATGACAGCGGT
TGCTTGGTACATCAACGACATGAAGCGCAAGCAGGAGCATGCAGCGCGCCTCCAGGAAGT
GCAGCGGCGGCTGGGTGGCTGGACCGGACCAGAGCTCAGTGCTTTTGGGGAAGTGGTGT
GGAGGGCCGCGTTCCGAGGAGGCGGANGGGNGGGTTGGCCCCCGCTACAAGGGGGT

Sequence 109

AGAATTGTGTATGCCTTGCCTATCACGGTACAGCACGAAGCCAGGCTCCTTTCTCCACCA
AAGAAGATGGAACCAGACTGGAATTCTGTCTCCAGAGAGAAACCCAGCTGTTTGGGTCAA
AGACAGATGCTTCAGACTTGGGTGGGAAGGTGAAAGATGGCTATTTAGAAAGCTGGTGGC
ACGTTTTACATAAGGGAATGTCAGATGGGAGATGCTAGTTGCCATTTTAACAAAGCAGGT
AAATCGGTAAATTTAACTCTGTCCATGTTCTGTTAGAACTCAGGGACAAGGGATCCAT
GAAAAAG

Sequence 110

ACGCGTCCGCACGGAGAGAACTGGNCCTGGAGCGGGGGCGCGGGGAGGGGGGCGTCGTCN
TGGGTACAATTGCGCANGGGCAAAGGTGAGAGGTGCGCTGNCGCCGTTTTATTGAAG
ACATCGTCCAGTTCTGACCATGGACTCNCAGCCATCGGCCCTTAGTTTCCATTCCTCTA
GNNGGCCCTTCNGAGGGNTCTACTGACGTACCTCCTTCCCTTGGTACCGGACCGGGGAAGT
GTTTTCGGGCGCGGGAGGTTCCGCATGCCAGGCCTGGCCAGGGGA

TABLE 1
21/467

Sequence 111

CGGGCCCTTAGTCCAAGCCTTGATCGGCGACTAAGTGACGGCAGTGACTGCCGCCATGCC
GAGCTGGACGGAAGNCACTTCTGAGAAGGGCGGAAGTGTCTCGGGCTCCTTAGAGGGAGG
ACACCATATTAGTGCCAGTGGGGAAGTCACCGGGTGGAATTACTTCTTTGTGGAGTTTGT
GCTGTAGCGACAATGAAAAACGAAGAGTCAACTTTTATAAAACAAAATAAAAATTAAGTC
AAATCATGCCAACCTTTATTAGATCGGCTAGCAGGGTTAACTTAATTCAAAGCCCCTGA
TGAATCGGGCCTTCATTGCACCCCCAAAGGCTCCGCCACCCTGATT

Sequence 112

CGCGTCCGGGCGCCGGTACGCCTGGTCCCCGCGTGGAGTCTTTACTCAAACAGCTCCCG
CCTCAGGCCGAGATGAGGAGCCCTTCANAATAGCTGCTGTCTCTGGGNGGACCCGGGCGT
CCTTGGCAGCCCAGCTGNTCTGGACAAAGCCCTGCCAGTCAGGCCTCCGCTGGCAGGAAC
CATGGCAGAGGCTGGGGATGCTGCGCTATCGGTGGCCGAGTGGCTGCGGGCATTGCACCT
GGAGCAGTACACGGGGCTCTTTGAGCAGCATGGCCTGGTGTGGGCCACTGAGTGCCAAGG
CCTCAGCGACACCCGCTGATGGACATGGGCATGCTACTCCCT

Sequence 113

TGTCGACCCCGCGTCCGCGGGANGTTTCATGGAAACGCAGGACACGACAGAATTGTGTNTG
CCTTGCTATCACGGTACAGCACGAAGCCAGGCTCCTTTCTCCACCAAAGAAGATGGAAC
CAGACTGGAATTCTGNCTCCAGAGAGAAACCCAGCTGTTTGGGTCAAAGACAGATGCTTC
AGACTTGGGTGGGAAGGTGAAAGATGGNTATTTAGAAAGCTGGTGGCACGTTTTACATAN
GGGAATGTCAGATGGGAGATGCTNGTTGCCATTTTAAACAAAGCAGGTNAATCGGTNAATT
TTAAACTCTGTCCATGTTCTGTTAGAACTCATGGACAAGGATCCATGAAAAAGACCTGTG
ATGTTTCTNTCTGGCGCTTACTGGCCTGGGCACACCTACCAATCTTTTAGGATTTGACTG
GTTCCATTACATTTCT

Sequence 114

GTCGACCCCGCGTCCGTATCACTGTAATTTAAGGAAAGAAAACCTTCAGTTCTGCCTCTGG
ATACCAAGATGCCCATTTGCTCAGTTCAGACAACTGATATTAATAAAAGCTATGCTCCTT
ACTTACTTCTTTTATTATAAAACAAATTCCTTTGCTTTGGCTGATACTAGCTGAGTCATTG
ATCATCATTGGTACCATGATATTGTAATCTATGCTGCTATTTGGCACAAGACTGAAGTTC
ACACTACAGTAGAGAATACTATAAGATAATTTGCAATAAATACTGATAATAATAATACCA
GATATTTTAACTAACTTTTCTACCTTTATTAATAGCAATCAGCACACTTGAATGTGTAA
ATTTACAGTAACTTTAGGCAGAACTTAAGCTCCAGGCCACATTTGTATAAGAACACCAA
GTATTCAAGGCATAAAGTCTGTTGTAAGCCAAAAAAA

Sequence 115

AGTTCACTCTGCAGCAGTCCCTGCACCCACTTCCAGTTGCTTTTCATCTNTGGAAAAAGA
TGAGCCCCGTAAAAGTTTTGGCATCAAGGTCCAGAATCTTCCAGTACGCTCTACAGATAC
AAGCCTTAAAGATGGCCTTTTCCATGAATTTAAGAAATTTGGAAAAGTAACTTCAGTGCA
GATACATGGAACCTTCAGAAAGAGAGGTATGGTCTGGTATTCTTTCCGCGAGCAAGAGGCCA
AGAAAAAGCCTTGACTGCATCAAAGGAAAACTTTTCTTTGGCATGCAGATTGAAGTAAC
AGCATGGATAGGTCCAGAAACAGGAAAGTGAATTTGAAATTTGCCCCCTTGATGAAAGGA
TAGATGAATTTACCCCCAAAGCAACAAGAACTCTNTTTATTGGCAACCTTGAAAAACC

Sequence 116

CCCGCGTCCGCACCAGGCCCGAGTCTTCCCTTCATGGAGGGTGACGTGAGCAGCAAGGAT
AAGATGGGCAAAGGAGTGGATGGGACATATAAAAAAGCTCTTCAGGAAGCTGCAGCAAGG
TTTGAGGAATTAAGGCCCAAAAAGAGCTAAGACAGCTGCAGGAAGACCGAAAGAATGAC
AAGAAGCCACCACCTTATAAACATATAAAGGGTCTCCCTCTGTGACCCAGGCTAGAGTGC
ATTGCTGCAATTTTGGCTCACTGCAACCTCCGCTTCGTGGGCGCAAGTGATTCTCCTGCC
TCCTGCCTCAGTCTCCTAAGTAGCTGGGATTACAGACATGAGCCACCAACGCCTGGCTAA
TTTTGTGATTGGCAAAAAAGAGATTTTGTGACACATAAAGATGATATGAAATTCACCTT
CAATCAAGTATCCAGAAAATTTA

Sequence 117

CCACGCGTCCGGCCCTTGCCCCTGTCNCACANGAATGGACCCACGGCCCCACCCAGCGCC

TABLE 1
22/467

GTCAGCGCCCGGCACTGCCACCCGGGTCCGGGCCGCTGCCTGCACGTGGGATCCGTCCGG
CAGCCGGGGACAGAAGAGACCCCGCCGTTGGGACGCAGGGCAGAGCCGGCCACCTAGTCC
CTTCCAGCCAGCAGAGGCGAGGGAAGGCGTCACTGCCCCGGCGGGGAGACGGGCAGGACG
CCCTGCCCCGCACCAAGCAGCCTCCGCCGGGGCGCCCTCAGTCCCTGCTTGGCTCTGTCT
CTCCACACCCGGCAGGGCCCGCGGGCTGCCCCAGCCTGGGGGGGTCTGTTGGGCAGCTGCTA
CTCAGTGCCAACCCCGTGGGGCACAGA

Sequence 118

NAGGGAGTCGACCACGCGTCCGGTGCAGGAGCAAGCATCACACCATGGCGTATGAGTGTTT
CTCTGTGTAGACTCAACCTGCGCCTCGCCGTCCCCATTGCGACACCCGATGCCCGGGG
TCGCTACGGACTTAAATCTCCGCACCGCACCTCCACCTCAGAAACGTTCTGGATCCG
AACACTGCCCCCTGACGACCTAGAGAGATCCCGGCTCCAGCCCACTGAGTGGCTTCAGC
CTCGCTGGTAGGTCTCTCTCCAAAGCTCTGGAACAGACTCCTGGGAGTGANGGTAGNG
GGGGAGCNGCAGGCACCGCCCCCTTTCCCAAGTCCNCCGCCCACTTCATCCCTCAGGCA
CCTNCCAACTCCTGGCCTTNTCTGCACGAGGCGCCTGCCCGGGCCCCGCTACAGGGGA
CCCAGCTCTTCTTGACGCCATTGGAAGNTGATCACCTGGGAGGTGA

Sequence 119

CACGCGTCCGGTTTTACTGCTCTTTGCCATGTGGTAAAAAGAGGCTGAGACATATTTAAG
AATCCAAGAGGATATTATGTGTCAGAATTCAGACACTGATGAGAAGTTTTTAATTGTT
CTTTTTTATTTGATTTTGAATTCAGGTGCACTCTATTCAAGTGAAGGATATCAGAAGT
TTTTTTTTATTTAAAAAATTTTTTTTTCGAGATGGAGTTTCACTCTGTTGCCAGGCTGG
AGTGCAATGGCAGCTTACTGCAACCTCCACCTCCTGGTTCAAGCGATTCTCCTGCCTCAG
CCTCCCCAAGTAGCTGGGGATTACAGGCACCGCGCCAACACACCTGGGCTTATTCTAATT
TAAGTAAGAAAATGGGAAGTCTTACCATNTTTGGTCAAGGCTTGGGTCTTCGAACCTNC
TGACCTTAANGGTGATNCCACCCANCTTTGGCCTCCCAAGCCGTGCTNGGGATTATAGG
GCATGAAGCCCACCCANGCCCGNCCCAGGATTTTTATATTTAAGCCCTTCTTGCTCTTN
AAAAAAAAAAAAAGGT

Sequence 120

NGTCGCCNCGCGTCCGGGAACCTACCGGTACCGGCCGCGCGCTGGTAAGTCGCCGGTGTG
GCTGCACCTCACCAATCCCGTGCGCCGCGGCTGGGCCGTCCGAGAGTGCGTGTGCTTCTC
TCCTGCACGCGGTGCTTGGGCTCGGCCAGGCGGGGTCCGCCGCCAGGGTTTGAGGATGGG
GGAGTAGCTACAGGAAGCGACCCCGCGATGGCAAGGTATATTTTGTGGAATGAAAAGGA
AGTATTAGAAATGAGCTGAAGACCATTCACAGATTAATATTTTGGGGACAGATTGTGA
TGCTTGATTACCCCTGAAGTAATGTAGACAGAAGTTCTCAAATTTGCATATTACATCAA
CTGGAACCAAGCCAGTGAATCTTAATGNTCACTTAAATCAGAACTTTGCCNTTAANAAAG
AAATTTGGGGNGTCTGGGTTTA

Sequence 121

CCNCCCGCGTCCGATCAATTCTGGAATTTATGGTTATAACTTCGAAACAGAAGATGGA
CTAATTTTATTTTATCTAATTTTATTGTTGGAAATTTAGGAATTTACGGAAATACTAAT
TTAAATTATTTAAAAAGATCATTAGAATCAAGTAAACCAATTTTGATGGCTATGATTGAC
TCAACAAGAGCTAATTATCCAGGTAAAACAATAGATAAAATTTTGTAAAAAGTTTTTA
GAAAAAACATTTTAAACAACAAATCCACTTCAAGAATAATTGTGCGAGCATACGATGAA
GAGATGCTTTCAATTCAAGAAATCCTTGATTTAGCTTACAAATCAAACGTAAAGGTTGCT
GTATATGGNAGAAATTATGACAATCTTTTAGAAATGAATCAACGATTAGCACAAAAACAA
AATCTTGAAATACATTATCCAGAATTTTGTGATTTAGGCAAGCTAATAAATCGATAAT
TTTGTAATCTTAATTACATCAACACCTGGAGCGAATTTACCAAAGATTTTTTAGAAT

Sequence 122

CGCGTCCGCGAAACTGAGAACCAGTTCTCCGAAGCCGCGGGTCTCCGGCCGGCGGGCGGC
GGCGGGCGGCGCAGGTGAGCAGGGCAGGGGGCAGCCGAGGGAGCGCGGGGAGCGGGGGCCG
GGGGGCCACGTACGAGGGGCTGCAGGCCAGCCGGGGCGGGACTCGCCAATCCTGCGTCC
CCAGCTCAGGACGCGGACGCTGATCCGAAGCCCTGGCCCCGCTGGGTGAGCACTGGGA
GAGCAGGCCAGGTCCGCAGCCCGGGTGTGGGGCCCTCCCCAAATCCAGGGAAAGGATCG

TABLE 1
23/467

TGGAGCGGGGTGGGGACTGAAAGCCATTTCTTTCCCGTGAAGAATTTTATCAGTGCAA
GTAACAAAAATATT

Sequence 123

CGCGTCCGCTNAAAAAATAATACCAAAAAAGTTTTGTAAAGACAACGCTCTCGCTGT
GTTGCCCCGCCACTGTGGCCTCCTTAGCTTCTTCCCTGGGGCCTGCTGGACCTTTCCATA
CTCCAGAACTAAAGGGGGTCCAGGACCCTGCTTNAACCCTAGGATCCCGCATCTTTTT
TTTTTTTTTTGGACGCAGGGTCTTGCTGTGTCCCTCAGGCTGGAGTGCAGTGATTCACT
GCAGCCTCAAACCTCGTGGGCTNAAGTGATTTCTTAGCCTCAGCCTTNTAAGTAGCTGGG
GACTACAGTCATACACCAACATGCCAGCTAANTTTCTTTTTTAATTCTGTAGAGNA
TGTTTGAGACGGCTTGGGCTNTGTTGCC

Sequence 124

CCNCGCGTCCGTGCTGATAAACTCCTTTGACCTGACGATTGCTCTAAGTCCTAATTGCC
ATATTTATATTCCCATAGTAAGAGTGTGGAGATAGTGTTGAGCTTTTTGCTGGTGT
TAAAAATGCATAATGAAAGATGGCACNAGAGAGGCATATTATCCAATTCATGAAGTTG
TTTGTGTTAACAGAAAGCTTATTTAATCACTTAACATTGTTGATTGTCTAATCACAGT
AGCGCTATTGATTAGGAGCCTGACCTTANATGGTTGACTTGTGAGTGTATTCAATATGG
TGAAATAANGGTGTTTGATATATGGCTGCAGATTTTGAAGGTGTCATTAGCAAAGGTAT
ACGGAATAAAATANGGGTTATAGTATTCTTACTCAAATTCTGTATGTGCTAGAGCTGGC
TGGAGTCTGTTGGCATGCTCATTGGTGTAAAGNCCGNTAAGGACTATGCT

Sequence 125

GCCCCGCGTCCGCACTTTGTATTGATAACTTAAATGGCATCAGTTTATCTTAGACATCA
GCTTGCTTTTTATCTCCTTTTTTAGTGAGTGAAATAGAGCAACTAGCATGCCTGTGTTCC
CAGCTACTTGGGAGGCTAAGGTGGGAAGATCAATTGAACCTAGGAGGTTGAGGCTATAGT
GAGCTGTGATTGCACGACTGCACTCCAGCCTGGGCAATGGAGTGAGACTCCTGTCTCTAA
AACAGCAACAACAAAAATAAGCAACCATAGTGCATAAGGGAAATTAATGTTCCCTATA
GAAATATGTGTATGTCTGTGATAAGTGGTATGCAAATGCTAATTATTTATAAAATAAAA
GTTCCAGAACTATTCTTATCATTGCCACTTGAACAATTAAGGGTTTGCTTTATTTCTAA
TGTTTAATAGGAACCTTTGCTTCAAACAGCCTTTGTTGAAATCATGTAAAAATTTGTTA
ATAG

Sequence 126

CNCCACGCGTCCGGCGGCCAGCCGCCGCTCCCGTTCTCCCTCCGCAGCGGGCGGCGGT
GGCGGAGAAGGAACTCGACACGCACCGACCGCCCTCCCGCCCCAGCCGAAGCGGAAGCTG
TAGCCCGCTCTGGGCGGGGCCATGGGCGCCCCGCGCCCGCCGGGTCATGAGGACGGAGG
CGGAGGCAGCGGGGCCCGCTCGAGCCCGGGGACTTTGTGCAACTGCCTGTGCCCGTCA
TCCAGCAGCTCTACCACTGGGACTGTGGCCTGGCCTGCTCCAGGATGGTGTGCGGTACC
TGGGCCAGCTGGACGACAGTGAGTTGAGAGAGCCCTGCAGAAGCTGCAGCTGACCAGGA
GCATCTGGACCATCGACCTGGCCTACCTGATGCACCACTTTGGCGTGAGGCACCGCTTC
TGTCACAGACCTGGGGTGTNGACAAGGGCTACAAGAACCAGTCCTTCTACAGGAAGCACT
TT

Sequence 127

CNCGCGTCCGCGGTGCGGTGGGCGGACGCGNGGGTTCGTCTGGACAAGTCTGGGAGTGT
GGCAAATAACTGGATTGAAATTTATAATTTTCGNNAGCANCNNGGCGGAGAGATTCTNGT
AGCCCTGAAATGAGATTATCTTTCATTGTGTTTTCTTCTCAAGCAACTATTATTTGCCA
TAACTGGAGACAGAGGCAAAATCAGTCAAGGCTTGGAGGATTTAAACGTGTTANTCCA
GTAGGAGAGACATATATCCATGAAGGACTAAAGCTAGCGAATGAACAAATTCAGAAAGCA
GGAGGCTTGAAAACCTCCAGTATCATAATTGCTCTGNCAGATTGGCAAGTTTGGACGGTC
T

Sequence 128

GGAGTCACCNCGCGTCCGCCCCGCGTCCGCCCCGCGTCCGGTTAATCTTAGGCCTGAGGT
TTGGGGCCGGGTGACAAGGAAGTTAACTCGTCCTCCCTGCCAGATTCTACCCCTTTTCG
GAGCTGAGCTCCAGCCAAACCTGTGGAGTTTTCTTGACCATTTTAGGACATGTTACTGC

TABLE 1
24/467

TTCTGAGTTGGCTGCCCCAGCTGCTCAAACAAGACCTTTCTCCTGGGTTCCTAGTAGTGA
AAAGGAGCAGCAGAGCAACTGAGGAGGAGGGCGGGTGGGAGGCATGGGACTGGGGCTTGG
GGAGGTCAGGCGAGACCGGGGTGAGAGCTCAGAGAAGCTCCTGTGACTTCCATGCTAAGA
TCTTGCCAGAGAACTCTGGTCAGTCCTCGGGTGTCTGGATGAAGTAAAGGAGTTAGGCAT
TTCTTCCTTTGATTCTCTGGCTTACCT

Sequence 129

CGTCCGGCCCCGCTCCGGGGCGTGGGCGTGTTCTCGGCGGGCGTGCCTGGAGGAGGAGCTGG
GTCCTTGTGCGGCTGCAGAGTCAGATGGGGCGGGGATTTGGGGCACCGGGTCCTCACCT
TCACGAGAAAAGGCCCCACAGCACGTCCCACTACCCGACGACTCACTCTTCGTGGCTTCT
CTCTCCTCCCCAAGAGCAGGGGTGGGCGTGCTCGCGTTCCCTGCGGGAGTCAGGAAGC
GTCCTTCTACCTACCAGTCTCCCTCTGGTGTCTGGGGACACTTCCTGGGGGCCTTTC
AGGTGGTTGGCGCCGGTGCAGGGCCTGAGAGCCTGGG

Sequence 130

GCGTCCGGTGGCATCATGACTTCTGGGGCAGTAGACTGAGCAGCAACACCAGCCACAAGT
CCTACCGGCCTCTCACCGTCTGACTTTCAGGATTAATACTACTACCTCTCGGGAGGCTTCC
ACCCCGTGGGCTTTCACGTGGTCAACATCCTCCTGCACAGTGGCATCTCTGTCTCATGG
TGGACGTCTTCTCGGTTCTGTTTGGCGGCCTGCAGTACACCAGTAAAGGCCGGAGGCTGC
ACCTCGCCCCCAGGGCGTCCCTGCTGGCCGCGCTGCTGTTTGCTGTCCATCCTGTGCACA
CCGAGTGTGTTGCTGGTGTGTCGGCCGTGCAGACCTNCTGTGTGCCCTGTTCTTCTTGT
TATCTTTCCTTGGCTACTGNAAAGCATTTAGAGAAAGTAACAAGGAGGGAGCGCATTCTT
CCACCTTCTTGGGTGCTGCTGAGTATCTTCTGGGAGCAGTGGNCATGCTTGTGCAAAAG
AGCAAGGGATCACTTGTGCTGGGTTTAAATGCCGGAATTTGACAATCTTGGGTGATAG
GC

Sequence 131

GTCCGCTGGGGGCCCTGGGGCTCTCTGCGTCGAGAGCGCTCGAAGACCCGGGATTCCTGG
CCCGATCGCGGGCGGGGGGAGACCCAGCTCCACCCAGCTCCCGCCGGCTCGGGGAAGG
GGCGGCCCTTTAAGAGCGCGCGGCCCGCCCGCCCTCCGGGCAGGATCCGAATTCGA
GGGAGGCGGGGCGGAGACGGCGGCGAGGAGGAGGCCGCGGCGGGACGCATAGAGCTGC
GGCTCGGGCGGCGCCTCCTGCGGCGGCCCGGCCGGCTCCGGCCCCCGCTGGGGCAATGC
TCCCCGGG

Sequence 132

TCGCCNCGCGTCCGGGCACACACATGCCAGGCTATTTTAAGAACTACTACAACATATGATA
AAGCTGTGAATATGTAGCCATGAACCAAAACAAAGTCTCTGTCCTTGTGGAACATTTGTT
CTGTGAGAGAAAGACAGTGTGTTGGCTCACATTGTGGTCAGTGCTGTTGAGCAAAATAGGT
CAGAGTAAGGGGGATGGAGACTGGTGGGAGGAATGCTGCTTTATCCAGGATGGGCAGGGA
GGAATCGATGGTGTGAGCACTGAAGGATGTAAGATCTGCTGCTCTGGGGAGAGGAGCAGC
ATGGAAGGAGTAGAGTGAGAGGCCATGAGGAAGGATCAGGCTTGACTCCTTTGAGCAAG
GGGGATGGGAAGAGTGACGGNAGAAAGAGGGACAGGCCACATGGCCTGGTGGCCTGTGCT
GAGGCCCTTGGGCTTTTCTTCAAGTGAGATGAGATGCCATTGGCCAGTTTGGGCAGTGATT
TNATCAGACTTGGTTCAGCAGGACCATNCTGCTTGGCAATGTGGAGAGCANGCTGAAG

Sequence 133

CGCCNCGCGTCCGAACAGGCGGGCACCAAGGCGCAGGATTTCTATAATTGGCCTGATGA
ATCCTTTGATGAAATGGACAGTACACTAGCTGTTCAACAGTATATTCAACAGAACATAAG
AGCAGATTGCTCCAATATTGACAAAATTCTTGAACACCTGAAGGCCAAGATGAAGGTGT
GTGGAAGTATGAACATTTAAGGCAGTCTGCCTTGAGCTAAATGGACTTGCTGTCAAAC
TCAGAGTGAATGCCATCCAGATACTTGCACTCAAATGACAGCAACTGAACAATGGATTTT
TCTTTGTGCAGCTCATAAACTCCAAAAGAGTGTCTGCTATAGACTATACTAGACACAC
ACTTGATGGTGTGCTGATGCTTCTGAATAGCAATAAATATTTTCCAGCAGGGTTAGCAT
AAAGGAATCATCTGTAGCGAACTAGGATCAGTATGCCGTAGGATTTACAGAATATTTTTC
ACATGCTTATTTTCATCATCGGCAGATATTTGGATGAATATGAAAATGAAAC

Sequence 134

TABLE 1
25/467

GCGTCCGCGAAAGCTGGGAAGCCAGGTCTACCTGCCCCAGACGAATTGGTGTACCAGGTG
CCACAGAGCACACAAGAAGTATCAGGAGCAGGAAGGGATGGGGAATGTGATGTTTTTAA
GAAATCCTTTGAAGATGATGCTGCTTTTTACAAAGCATCGTTTTAAAGCACATGGCCTTT
TTTTTTTAAATTATTAGTGGTAGTAATATATAGAATGTATTACATAACTGTCACTGAAGT
GGTTGGGGAAAATGTGGTGACTGAGGTACAGGAACTACTAATCTTGCCATCTTGCTTTA
AGGTGTTATGGTGGCACAGTTACTGCTCGCCTGTTAAATTTCAAATGTCCTGTTTGATAC
TACTGGAGAACACTATTTTTAATACAGAAAAAGCTCCCTATAATGCACTTCAGAGAAATT
AA

Sequence 135

TCGACCCACGCGTCCGGGAGTCCCCCTGCCCCCATCAAATGCTTCCTGCAATACTTTG
CACACCAGAGACTGGGCCTCCCCAGATCCAGGGGGACAGGGGTCCCTGGGGGAGTCCCCA
GGGCCAGCCCCTCCAGGCCAGCTGCACACACTTGACACTGATTTGCACAGTCTTGACAAA
ATAGGGGGTAAGAGCCCAGTGGCTGGGGTGGGCAATGGGGGTAGCCTCTGGCCTAGGGAG
TCCCCTGGCACTGCCAATGGGCACAGTCCCAGACACACCCCCCTGGCCCTGGACCCCCA
GGCCCCCTGCCCCACCAAGCGAAGGCTGCTTCCTGCTGGAGAAGCCCCAGATGTCAGCTCT
GAGGAAGAGGGGCCAGCCCCTCGGAGGCGCGGGGATCCCTGGGCCACCCTACTGCTGCC
AACAGTTCTGATGCCAAAGCCACACCCTTCTGGAGCCACCTGCTGCCTGGGCCCCAAGAG
CCTGTTTTGGACCCAACAGACTGCGGTCCCATGGGGCGGAGGCTGAAAGGAGCCCGTCGC
CTGAAAGCTTGAGCCCCCTTCGAAAGCCTNCGGAAGGGGCCAGGCCTGCTGAGCCCCCCC
AGT

Sequence 136

CGACCCCGCGTCCGTGAGAATTCAGCTTTGGAGTCCCGGGTGAGGGGTTTTAGATAAACC
CATCAATATCACCCACATTCTGTGACTCTTTGCATCACTCGTGTTATTTATTTATTTATT
TATATTCTGCCTTGTTCCAGAAAAGTGTTTAAAGGCAACAACGCTTGTTTTTGGTGT
CTTTTGACATTTGAAAATTTAGTACATTGTTAAATGTACTTGTTAAACAGGTAATTTTA
AAGAGAAGGAACAATTGTTTTAGTAAGTTTTCTTTTCTTTTCAATGAATTGATTCT
TCAAATTTAAAGTTCTTGAGAGAAGGAGAGGAAGATACAGCAGACATAGGACTGAGCCAA
GGAAGAGTCTGCCTGAGAGAGACGCTTGGCCTGTGCTTTGCTGCCATCCGTGCGGCCTTG
GCCACA

Sequence 137

TCCGATTTTTAAATCTATTGGCCGTGTTGTCTACCTGAAGTTCTTCAACTGCCAAAAGC
ACAGCCCTTTTTCTCTGAGCTGGTGGTTCTGGCTAACACTGACAGGGGTGCTTGTTCCT
GTGCAGTGGGCATCAAGTACATGGGTGTGTTACGTACGTGCTCGTGCTGGGTGTTGCAG
CTGTCCATGCCTGGCACCTGCTTGGAGACCAGACTTTGTCCAATGTAGGTGCTGATGTCC
AGTGCTGCATGAGGCCGGCCTGTATGGGGCAGATGCGGATGTCACAGGGGGTCTGTGTGT
TCTGTCACTTGCTCGCCCGAGCAGTGGCTTTGCTGGTCATCCCGGTGTCCTGTACTTAC
TGTTCTTCTACGTCCACTTGATTCTAGTCTTCCGCTCTGGGCCCCACGACCAA

Sequence 138

CGACCNCGCGTCCGGAAGGACCCTCTGAGCTATTTTGCGGCATACGGGAGCAGCAGCTCA
GGCTCCTCGGACGAGGAGGATAACATCGAGCCGGAGGAGACGAGTCGCAGAACCCCGGAT
CCGGCGAAGTCGGCGGGCGGCTGTAGGAACAAGGCGGAGAAGCGGCTCCCGGGACCTGAC
GAGCTGTTTAGGAGCGTGACTCGCCCGGCCCTTCTCTACAATCCGCTCAACAAACAGATA
GACTGGGAGAGGCACGTGCTCAAGGCGCCTGAGGAGCCTCCAAAGGAATTCAAATATGG
AAGTCAAATTATGTACCACCTCCTGAGACCTACACCACTGAGAAGAAGCCTCCGCCTCCA
GAGCTTTGACATGGCAATAAAATGGTCTAACATATATTGAGGACAATGGTGATGATGCTC
CACAGAATGCTAAAGAAAGCTAAGGCTTNTACCA

Sequence 139

CGACCACGCGTCCGGGCTGGCGAGCCCGGCTGAGGAGCCTCTTGGGTGCGACTTACCGCC
GCGTCCGCTCCCGGTCCCTGGCCCCCTCAGCGGCATGGCGTGCGGGGCGACGCTGAAGCGG
CCCATGGAGTTTCGAGGCGGCGCTGCTGAGCCCC

Sequence 140

TABLE 1

26/467

CGTGTCCGGTGAATGGGAGCGGAACTCACAGGACACAATGAGCCGGGTCACTGATGGCCT
TGCTTTCTAAGAATCTCACAGTGAGCCCTAGAACTCTCTACGTGGTAACACTGTGTGCCT
TTTTCAGAGAAGAGCCTATCTTAGATCTTAGCCTAACGTTGGGTCTATTGTGTTGCTGGA
GAGACCAGCACTGACATTCATCTCAAAGCACATGGTATGTTTGACTCCTATGTTGACTCA
ACTACCCATCTTGTACTGGGACACTCGCTTTTTTTTTTTTTTTTGGAGACGGAGTCTTGC
TCTGTCACCGGGCTGGAGTGCAGTGGCACGATCTCGGCTCGCGGCAGCCTCCGCCTCCCG
GGTTCAGTGATTCTTCTGCCTCAGCCTCCTGAGCATGTGGAGCTCAGGCTGAAGGTGAT
GTGGCCGCCC

Sequence 141

GTCCGATTGATTCTTCTATGATGCGTGTTTCATTATACAATACACATTCTCGGAAAGGCAG
AATTATTTGCTTTTATGATTGTTTTTGTGACCTAAGAAACGGTTCCTCCCCATTTTCC
TATCCCAGGCCAAAAATATTCTCTCACGTTTTTCTGTAAGAGCTTTATAAGTTCAGCTT
TTATATTGAGGTCTGTGATTTCATCTTGATTATTATGTGTAGGTTGTAAATAGGAATCT
AGGTCCAGTTTTTCCATGTGGATATTCAGTTATTGTGGGGCCAATTGTTGAAAAGTCTCC
CCAAAGAACTGCTTTCTTATCAGAAAGATAAGATATATTAAGTGTATATCTAAGTCTG
GGTCTCTTTTCTGTTCTAATGGTTGATATTTTATCCTTATGCCAGAACCACACTGTCA
TGATTGCTGTAGCTTTATAATAGTCTTGAATCAAGTTGCTTTTCAGTTTTGATTTTTCA
AAATTGCTTCGGTATTCTAAGTCCTTTCGATTTCTGCTAAAATTTAGAAGCAGCATGTC
TACCAAAAGGAAAAAAAAGCC

Sequence 142

TCCGGCGGAAGAAGGTGCGTCCGCGGCTGATCGCGGAGCTGGCCCGCCGCGTGCGCGCCC
TGCGGGAGCAACTGAACAGGCCGCGCGACTCCAGCTCTACGCGGTGGACTACGAGACCT
TGACGCGGCCGTTCTCTGGACGCGCGGCTGCCGGTCCGGGGCTGGGCCGACGTGCGCCGCG
AGAGCCGCTCTTGACGCTGCTCGGCCGCTCCCGCTCTTCGGCCTGGGCCGCTGGTCA
CGCGCAAGTCCTGGCTGTGGCAGCACGACGAGCCGTGCTACTGGCGCCTCACGCGGGTGC
GGCCCGACTACAGGCGCAGGTGCGTGACCCCGTCCGCACCCCGCCCCCTGCAGCCGCT
GGTCTCCCGCCTCCCTCCTCCCTGCAGGTTTGCCTGGCTGAGGCTCCACCTCCTGAC
CTCGGGGGCCGAGAGCTTTCGAGCTGACCCCGCTTCTCTGGCTTTCAGAACTTGGAC
CACGGGAAGGCCTGGGGCATCCTGACCTTCA

Sequence 143

CCCGCTCCGAGATCCTGTAGGTGAAGTTCTCCTGTGCTCCACAGCCACCCAGAGGAATT
CCAAAACCAGCAGTGAGGACTTGGGGAGGACAGGAGGGAAAACATGGCGAGTTCATCAG
CTCTGTTTCTTTATTAATAATTTCTGTAATTGGTGGTGGGAAATTGAAGAAATCAAGT
GATTGCATCAGCGCTGGAAAAAGCTGCCAGCACTTGGCAGTGGAAGAGAAATATATGCTTT
ATACTGGACTTTTTGAAAAAGAGGCTGAGTTTGGCCAGATTGCCGACCAGCAATGAAAA
ACTAATTAGGTGCCTTGCTGTGAGCCAGACGCCAGCAGGGCTGTGGCGCATGGCTCCC
GCCGCTCTGAAGAGGACACTTTCTAGTGAATTCAGTTCGTGCTACCTTGAGCAGCCTG
TGCTACAGCAGGCACATTTGTGAATCTCCAGCCTGTGCCTGGCGTCNGAACTGTAGCTT
CCCAAAGAC

Sequence 144

CGCGTCCGAGTAAATCTGTTCTGCACTAAATTATATCAAAATAAATAAATAATTATTT
CGTATACCATTCGTTATATACATTTAGTGTTTTTAATAATGTCAATTTCTTATATTTTA
AGGAGAACTCTAGTTATTTTATAAATCTAATTGACTTAATTTTGTGGGAATATAAAGA
AGTGATTAAAAACCTTTGGTTTAAAGTAGTTAATCCTGAAATCAAGCTCTGTAAATATTG
TGTAGGGATATGGAGAAATCCTCAAAAAGAAAGAGCTAAAGAAAATGGCAGGGATGGCAT
CTTGGGAGTATAACTGAAAGTAGGAAGATGTGGATAGAAGAGTCTTATTTTAAATCACAG
GGCATATGTGCTATTTGAATTATTTTGACAAAAGTATAAAAATATGGAATTATGCATTGT
GTGTGTGTGTGGTTTCATCTGTTTAAAGAAATATGTGATGGAGACTGTCCTATCATCAGGA
AATTATTCCAGT

Sequence 145

GTCGACCNCGCGTCCGCGGAGACACCGACCGCGGCGGCAGCAGCAGCAGCAGCAGCGAGA

TABLE 1
27/467

GGCAGAGGCGGCGGCGGCGGGGAGGACAGCACGGCCGAGGCTGCCAGAGGCGCCTCCTC
CACACCCCCCGCCGAGCAGCACCGGCGACAGATTTTTAAAAAATGGATTTGGCCAACC
ATGGACTTATTCTACTGCAACAGTTAAACGCTCAGCGAGAGTTTGGTTTCCTGTGTGACT
GCACGGTTGCAATCGGCGATGTATACTTCAAGGCACACAAATCAGTTCTTGCTTCATTCT
CCAATTACTTTAA

Sequence 146

CCACGCGTCCGATCCTCCCCAAGGCAGAGGTGTGCGTGCGGAACCATGTCCAGCCCTACA
TCCCATCCATCCTGGAGGCCCTGATGGTCCCCACCAGCCAGGGCTTCACTGAGGTGCGAG
ATGTCTTCTTCAAGGAGGTCACGGACATGAACCTGAACGTCATCAACGAGGGCGGCATTG
ACAAGCTGGGCGAGTACATGGAGAAGCTGTCCCGGCTGGCGTACCACCCCCTGAAGATGC
AGAGCTGCTATGAGAAGATGGAGTCGCTGCGACTGGACGGGCTGCAGCAGCGATTTGATG
TGTCCAGCACGTCCGTGTTCAAGCAGCGAGCCAGATCCACATGCGGGAGCAAATGGACA
ATGCCGTGTATACGTTTCGAGACCCTCCTGCACCAGGAGCTGGGGAAGGGGCCACCAAGG
AGGAGCTGTGCAAGTCCATCCAGCGGGTCTTGAGCGGGTGCTGAAGAAA

Sequence 147

NACCACGCGTCCGCCNCGCGTCCGCTTGACCCGGTGAAGAGCGTGCGTGTGCTGAGGCC
GGAGCCGCGAGACGGCTGTGGGGCCCTCGCACCCCGCCTGGGTGCCGCGCCTGCCCGGC
CCCCGCCCNCGNCCNCGCCCCCGNCCNNGCTGCGGAGGGCTTGGACGCCAAGGAGGANCA
TGCCCTGGCGCTGGNCGGCACAGGCGCCTTCCCGNTGGACGTGGAGTAC

Sequence 148

TCCCAAGAGCTGCANGNNNCAGCCGCGACAGCAAGAACCNGNAGAGCCGGCAGACCGCGG
CGGCGGCGGCGNCGGAGGCAGGAGCAGCCTGGGCGGGACGCAGGGNCTCCGCGGGCGCAG
GAAGGCGAGCAAGAGATATNCTCTGAGAGCCAAGCAAAAGAACATTAANGGAAAGGGAAAG
GAGGAAANGAAGGCTGGATACCGGNGCAGTGAAGAAAGGCACTTCCAAGAGNTGGGGGCA
CTCAACTACGCCACNAGACTCTGACCGGGTGGCCCAATCAAGCCAATGAAGAAACCTATA
ACCCGGNTTAACCTNTNATTGGCCTGCCTTCTNNNTNNGGGGGTGGGGGCCCAAGCCNC
TTAACCCCCCAACCTTCNNTTCAAACCTATCCCAACCTTATTCNAAAANGAAGGGGANC
CTNAAGGATGGGGNTTTCCCCCAAGGCNAAAAAGGAAAAAAGGGGGCCCCCNNGGGAAG
CCTTCNTTCTTGGGAAAAACAAGGCAAAAAAATTTGGAAGCCTGAAAACCCGGCTTCAA
AAAAAAGGGG

Sequence 149

GGCCGAAAGGGGGGCGAGGTGGTGGGGCCGCGCAAGCGGAGATGGAATGGGGCCCGGGCTC
AGACTGGTCACGGGGGAGGCTGCCGGCGTGACCGCGGGAAGGCGGGGCTGGGGCTCGG
CGGGAGGCCACCCCCACAGCCGCCCGGGAGGAGCGCGCCAGCAGCTGCTGGACGCGGT
GGAGCAGCGGCAGCGGCAGCTCCTGGACACCATCGCAGCCTGCGAGGAGATGTTACGGCA
GCTGGGCGCGCGGCGCCCGGAGCCGGCTGGTGGCGGGAACGTCTCANCCAAACCTGGAGC
G

Sequence 150

CACGCGTCCGGCCTGCTGTTNACCTGCGGGACCCCAGGAACCTGGACTTGTTTCTCAAAG
TGGTTCATGGAGATGTCACCCCTACGACCTGGTGCGGATGAGCTCGATGCAGCTGGCCC
CCCAGGAGCTGGCCCGCTGGCGGGACCAGGAGGAGAAAAGGGCCTGAATATCATTGAGC
AGCAACAGAAGGAGCCGTGCAGACTTCCAGCCTNCAAAATGACCCACAAGGGCGAAGTGG
AGATTACGCGGGACATGGACCAGACACTGACCCTGGAGGATCTGGTGGGACCGCAGATGT
TCATGGACTGCAGCCACAGGCCCTGCCCATCGCATCAGAGGACACCACGGGGCAAGCAT
GACCACCACTTCTTAGACCCCAACTGCCACATCTGCAAGGACTGG

Sequence 151

TTTTTCCTTAGAATCTTCGAGAAAAAGATGAAGGTATTATTCTCAGTTTCGAGATCAGGA
CTCCTCACCACCAGGCGGGGGCTTTAAGGTAGACACTACAGGGAATCTGATCTCAGGGTG
ATCCTCTCCCTTCCACTTGCAAAAAGAGAGGAGCAGGTGGGCCACTGCTCTCTGAGATGT
TAACACCCCTCACACTCCACGGGCATGCTTTGTATTCTGCACACCGGTGTAGCTGCAGC
TCTGTGTGAATTCAGATCTCAAGAGAAATGTAAATCAAAGTATGAGTTTCTTTCTTTCT

TABLE 1
28/467

TGGGTGCCACAGTAGGAATGAAATGATGGGGACTTTTGGAAGCCCCTGGACTTGTGGCCC
CTGTAGAAGAGCAGCTTGGGCAGGGTGTGATGGCCATCTCTGTCTCTAGGGGCCCTGTGG
A

Sequence 152

TGGCGAGAGCGCTGGTGCCGAGTGAAAGATAACAAGCTCATTTTCCACAAGGACAGGACC
GACCTGAAGACCCATATTGTGTCTATTCCGCTCCGTGGCTGCGAGGTGATCCCGGGTTTG
GATTGTAACATCCTCTGACGTTCCGGCTGCTGCGCAACGGCCAGGAGGTTGCAGTATTG
GAGGCATCTTCTTCTGAAGACATGGGCAGGTGGATTGGGGATTTTACTCGCAGAGACGGG
GATCGTCCACAGACCCGGAGGCTCTGCACATGACTACATTGATGTGGAAGATGTCTGCA
ANGTGTCAATTCAGACAGGCCAAACAGACCTTTCTGTTTTTATGAACAGGGCGTGTATAT
CTGCTAACCCATATCTAGGGGGCACCTTCAACGGGTTATTGCCACCCAGCGGGACGGCA
CTTTAATATGACGATGTTCCGTNCCATAAACCGGNTTGNTTAAAGGGTAAAA

Sequence 153

GTTCCGACCCACGGGCGTCCGCGGGACCGCCGTGGGNNNNACATACTATGCGNACAGGCGC
GTTGNACACAAANGGCCATTCTGTAGCCTCACACTTGACTACACATGGGGGANTCACT
CGGATTCGGNTCTCCACGTGGNNGNTCTTTGTTCTGTACTCTACGTAGCTTTGGCTTTTG
TTTTCTCGTCGCAACAGGGCATGAGACTTCGTGACCTTNGGGGTCTGTATAGTCTTTGA
CTTACTACGTGTAGGTCTCAATACAAAGTGGGANATANTCATATCCGTCCGCGAAAAGTA
ATTCTTGAAAAATTTACCCCTGTCTCCCGCNTTATGAAACGTGAACTAAGTAACTCACT
TTGCCCTGGGGCGCCTCTNTTTAACANTGTTCTTTGNCGAAATCATATAACCTTCAA
CTGAAAACAATGTGGTCAACAACTGACTATGGAGGTCTTAGGCTCNGTCTCTAAGATCT
TTAACCTTGTTTATCGGCGCGTGCGGCGTNGTCCGAACGAAGAGACTATAACCCGCACTA
TAACNAAAACCTTTTTTAAATCCACACCTCGTGAGGGANGGGCCCTAAGACTGAACT
GTAGTAAGTCCTATTGATTTGCGTAGGAGGANTTAGGAAA

Sequence 154

NCGCGTCCGATAGTCTACCAGCCTTACCTGGTTGATTACACTTGTAAGAAAGATTAAA
AGCAGGCCAGTGACTCTGGTCTGCTTGAACATGTGAATGTAGTGGTTTGAGCAATCTGGA
GTTTGCCCTAGTGTCAAATTCAGACTGTCCATAGTGTCCAAAACCTGAGGCAGACACTA
ATGTTAACCCCCAGCACCCCGTGATTGGAACAAACCTAAATACGTATTGGGAACTTAAT
AGCAATTTTAAGCATTCTGATAGATTTTTTGTAGGGATGGGGTCATGCCATGTGGCCCAG
GCTGGTCTGAAAACCTCTGGCCTCAAGTGATCTCAAGCTTTGGCCTTCTAAAGTGTGGGA
TTACAAGGTGTGAGGCATTGCACCTGGCTTAGCCGTCTTGATTTGACATTGTAATGAAAA
AGTGTGAGTCTTATTCTACCAGGGGCCCTTTTTTGTCTCTTGAAAAATNGAATAACCANG
GGAAGGGGGAA

Sequence 155

CCNCGCGTCCGTCCATCACAGCCTCCGAAGGTGCTGGGATTACACGGCATAAGCCACTGT
GCCCAGCCTGTTTTTAATAATGATATTAAGTGGGTTTGGTTCATGTGTTATTAATCAGTG
TTAATAATCGTACTTTTTTTTTTTTTTAAAAGAAACCATGGGTATTCTAAAATCAGGAG
TCCAAATAAAAGAAAGTTCTCGGCTGTGCGTGGTGGCTAACACCTTGATGCCCGGCACT
TTGGGG

Sequence 156

CGCGTCCGAAAGGAGTCGCGCCGCGCGCCGCCCCCTCCCTCCGGTGGGCCCGGGAGGT
AGAGAAAGTCAGTGCCACAGCCCGACCGCGCTGCTCTGAGCCCTGGGCACGCGGAACGGG
AGGGAGTCTGAGGGTTGGGGACCGTCTGTGAGGGAGGGGAACAGCCGCTCGAGCCTGGGG
CGGGCGGACCGGACTGGGGCCGGGGTAGGCTCTGGAAAGGGCCCGGGAGAGAGGTGGCGT
TGGTCAGAACCTGAGAAACAGCCGAGAGGTTTTCCACCGAGGCCCCGCGCTTGAGGGATCT
GAAGAGGTTCTAGAAGAGGGTGTCCCTCTTTGGGGGTCTCACCAGAAGAGGTTCTT
GGGGGTGCGCCTTCTGAGGAGGCTGCGGCTAACAGGGCCAGAACTGCCATTGGATGTCC
AGAATCCCCTGTAGTTGATAATGTTGGGAATAAAGCTCTGCACCTTCTTTTGGCATTCA
AGTTGTTAAAAACAAATAGGA

Sequence 157

TABLE 1
29/467

CGCGTCCGGGTGTCNAGGCCATGGGGCAGCCCTGGGCGGCTGGGAAGCACGGACGGGGCG
CCCGCGCAGCTGCCTCTCGTGCTCACCGCGCTGTGGGCCGCGGCCGTGGGCCTGGAGCTG
GCTTACGTGCTGGTGCTCGGTCCCGGGCCGCCGCGCTGGGACCCCTGGCCCGGGCCTTG
CAAGCTGGCGCTGGCCGCCTTCCAGCTGCTCAACCTGCTGGGCAACGTGGGGCTCTTCCT
GCGCTCGGATCCCAGCATCCGTGGCGTGATGCTGGCCGCGCGGTCTGGGCCAGGGCTG
GGCTTACTGCTACCAATGCCAAAGCCAGGTGCCGCCACGCAGCGGACACTGCTCTGCCTG
CCGCGTCTGCATCCTGCGTCGGGACCACCACTGCCGCCTGCTGGGCGGNTGCGTGGGCTT
NGGCAACTACCGGCCCTTC

Sequence 158

CGACCACGCGTCCGGGGACTCAGGCATGCACCACCACGCCCAGCTAATTTTTGTATTTTT
AGTAGAGACAGGGTTTCTCCATGTTGGCCAGGCTGGTCTCGAACTCCTGACATTCCGTGA
TCCACCCGCCTCGGCCTTCCAAAGTGCTGGGATTACAGGTGTGAGCCACTGTGCCCAGCC
CCTTCCTGTTGAGTAAAAGGAAGAACTTCAGGGTAAGACACTGTACAGTGCCCAGCATCT
GGAGAGCCGCCAGCATTACCCCTGCCTTAGGAGGTAGTCGTCTCCTCATCACTACAAAGT
ATTGAAGCCTGAGGGCCCTGGGCAGGACGATAGAGTGAGATTGCCCTGGGGACTCAGGA
AAGGAAACATGCCGTATTTNTAGGGAAGGAGCTGCTGCTGCCTCTCAGTGA CTCTGGTTC
CAGGAGGGAAGAGCCGAGAGCTAGGGTTCCCTTTCATAGGGAGAAACCCAGCAGGGTTTG
GGGTGTTCT

Sequence 159

ACCACGCGTCCGAAAGGAGTCGCGCCGCGCGCCGCCGCCCTCCCTCCGGTGGGCCCGGG
AGGTAGAGAAAGTCAGTGCCACAGCCGACCGCGCTGCTCTGAGCCCTGGGCACGCGGAA
CGGGAGGGGAGTCTGAGGGTTGGGGACGTCTGTGAGGGAGGGGAACAGCCCGCTCGAGCCT
GGGGCGGCGGACCGGACTGGGGCCGGGGTAGGCTCTGGAAAGGGCCCCGGGAGAGAGGTGG
CGTTGGTCAGAACCTGAGAAACAGCCGAGAGGTTTTCCACCCGAGGCCCGCGCTTGAGGG
ATCTGAAAGAGGTTTCCTAGAAAAAGGGGTGTTTCCTCTTTTCGGGGGGTCCCTACCAA
GAAGAAGGTTCTTTGGGGGGTCCGCCCTTNTGAGGGAGGCTTGCGGNTTAACAGGGCCAA
AAAANTTGCCATGGGATGTCCAAGAATCCCTGTAAATTTGATTAAATGGTGGGGAAATAA
AGCTTTGCAACTTTTTTTGCGNATTTAATTTGGTTAAAAACA

Sequence 160

TCCGCTCCCCTGTTTTCTTCCTTTTTCTTTTTGCTTGTATGCACAACGGTAGGACTTACT
TCGTAAGAAACAAAATGCCAGTATTTTCTTAAGCCATGATGTGAAACCAATGACCCTGTG
ACCACATGGCACAGAACTAAATTTTGGTCCCATGGCTGAACTTGAGGGTGACTAAAA
GTAATGCCTGTGAAACATGATATCTATCTGGGATGGCCATTGATCTCTAAAAGGAATT
TGTNCACTCCACAGAACTCCTATCTATAGTAAAATTTGATTTTTT

Sequence 161

CGTCCGGAAAAATATTAAACAACCTATTTTAAGATTCAAATTAACATAATTCCTGCATATA
TGACATTCCTTACATAAGCGAACACTAAACAAAAATGGCTAGAAATGTCTTTTTCTTTCT
TTTCTCTCTTTGTTGTTTAAGGTATTAAGCACCGAATTATTACATGAGACTGGCAGATAG
CTATTAATCCTCTTACAGATTTGAGAAAGTTGATTCTCAAATATTTATGCACCTTCTCCT
TCATTGTTTTCTTAAATCTGTCCTCTTAAAAAGCTTCTTAAGAGCTCAGTTAATGCTTT
TGA CTTAACTAGGAGAAAAAGGCATGATAATACAGGCAAGATGGCATTGTTAGCAATTCT
GGTAGGTGGTTTTGGAATGAATCCTAAGAGGCAAGGGGATCTTAAGGACAAGGAAGAGAA
GAGAGAGGGGGNGGGATCCCTTTGATCTCTTTCTCTGGNAATCTTAAATGCNTAATTTTA
CTAAACATGTTCTCAATTCATTATAT

Sequence 162

CCCCGCGTCCGGATTAATGAGTGTATGCCTAGCTCTTTCTCCAGTTTACTTTTAGACCAT
ATTGTTGTTTGTGTTTGAATATCATTCCCTTAGGCTATGTTGAGAGTAGAGTGGCTTCCCAT
TAGGAGAACTAATTTAGGGCATGTCTTTTGTGAATCCCGTCAGCATATTTAACAAATTC
CCAATTCTAGATAATTTCTTTTATTTCTCTAGTACCCTTTGCCAGGGGCTCTACACATC
AAAGGTGTTTCATGAAGTATTTGTCAAAGGAAAGAACAGTAATGACACCTAACACATAATG
AGTGATTAGTATGTTCCAGGCATTGCGTGAGCTATTTACTGTGAGTGATTTAATGTTATC

TABLE 1

30/467

TTCCAGCAGACCTCTGAGGTAGGGTACTAGTATGATCCCCATTTCTGTACATGAGGAAAC
TGACACTAAGGGACATAAAATAAGTTTTTGAAGTCACAAAGTGAATAAAAGGAAGACCAG
GGTTTAAATTGGAAGCCATA

Sequence 163

TAGACTTTTGCAGTGTTAAACACAGCTTCCTTAACTCTTAGAACTGGAAGTTGTAGAGCT
CTCCTTTTGGTGCCTTTCCAGCCTTTATACACACTATTGTAGCTTTCTTAGGTTTGATAG
GTAGCGTTTCAAGTAGTTTAGCTGAGACAGNGAATGTATTAGGTTCAACATGACCTTGTG
TTTTATTTGTGTTTGCCAACAGGATGCCTTATTTGTTTGAGAAAAAGATGTACTAGTGTC
ATTCTAAACTATCTCCTTTTTTAGGATTCTAAAGAAGTTAATCATCATCCTTTTGTAT
TTTACCACCATTTAGTGCCTTAAATCCTATCAAGAAAGCAGTGTTACTGCTCAATGCCCA
ATAAGACACGCGGATATTGCTATTGCTTGCTTTTGAGTTAACAGGCCNACTTTTTATAC
TTAAACCTCA

Sequence 164

GCCCCGAAGTCCCACTGTCCCTGCCGAGGCGCGCGCGTCCCCTGTGCCCTTGACCAC
GCCAGCCTCCGCCGAGGAGGCGATACCCCTCCCCGCGTCCCTCCGACAGCGAGCGGTCCGC
GTCCAGCGTGGAGGGGGCCCGAGGGGCTCTGTACGCGCGCGTGGCCCCGACGCGAGGCCCG
GCCGGCCCGGGCCCGGGGCGAGATTGGGGGCTGTGCTGTGCGCATCGCCCCGAGCGCAG
GAAACCGCCGCCACCTGACCCCGCCACCAAGCCTAAGGTGTCCTGGATCCACGGCAAGCA
CAGCGCCGCTGCAGCTGGCCGTGCGCCCTCACCACCGCCGCGCAGGCTCCGAGGCCGCGCC
CAGCCCCAGCAAGAGGAAACGGACGCCCAGCGAACAATCGGCGCATACGGTCGAACACN
GGAAGCCCCCGGACCCGGACCCAACGCCGGGGCCCCCG

Sequence 165

AGTCCGCCCCACGCGTCCGGTGAGTTTAGCGCTGCTGTCCGGATGGGTTGGTAGCAGACA
GGGTGGAGTAGGGTTAAGCACACTGGTCACCTTAGGATTGGTTTCTGGTGCTGGAGAAT
GGTTAGGACACAGGCCTTGGAAGGTTTTTTGAGTGTGAAATATACTCAGCGTTTTCTGC
AGACCTCGCGGGCAATGCCGCTTCTAATTTATCCAGGCCTTCTTCTGTAGGGAGGGCCT
GTTAAGAGTTGAGCAGCCCGATTCTGAACCCCTCTAAAAAGCTGTGGCTGATTGGTGGC
TTTTTTTTTCTTGGAGAGGGGGGTGTCAAAGATTCTTTAAAATCGTTAGTGATGTGGT
CTCGCTTA

Sequence 166

ACGCGTCCNAAAATGTGTGGTACATGGAATATTTTTATTATGCTTATTTCTGATTGCCA
GGTAGATGGCCAGCCTGACATTCAAAATTATTTATCAGCCCCCTAAATGTTAATATTTCC
CAAATATTTAAATCAGTAGAAGACATTTTACTATTAAGAATAAAAAGTTATAATATAA
AATGGATTAATGCCAGATTATATGCTAAACAAGTCCTTTAAATTTTTAACTTAATATTT
TTAACAGATTTTTTTTTTGAGATGCAGTTTTACTCTTGTTGCCAGGCTGGAGTGCAATG
GCACAATCTTGGCTCACTGCAACCACCACCTCCGGGTTTCATGCGATTCTCCTGC

Sequence 167

CCGTCCGCGAGGTTAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCATCTCTA
CTAAAAATACAAAAAAATTAGCCAGACATGGTGGCAGCCTCCTGTAGTCCCAGCTACTC
GGGAGGCTGAGGCAGGAGAAGGGCATGAACCTGGCAGGCGGAGCTTGCAAGTGAAGCCAAAG
ATGGCGTCACTGCACTCCAGCCTGAGGGACAGAGCAAGACTCTGTCTCAAAAAAAAAGA
AAAAAAGTGGCACAGATCAATTATAAATCACTGCTTCAAGGCCAGTGCTCTCACTTTGT
ACATTAATAATCTCAGGCCCAATAAGATAAGTGATATGTCAACGTATGTTCACTTTGGT
CTTTACATGGCAGCTATAGTATACCGGAATATTATAAGCTCAGATCGTCATAGCTACATA
ACTCCTTAGTTGGGAAGANACGCCGTAAATGCCCATCAAGANTAGCAAGTCTTGCAATT
GACT

Sequence 168

CGCGTCCNGGTAACCTGAATAAGGATTATGTGCCCCACCCTTACTCTCATTCTGCTTCC
TCTTGGGCTCAAACAGGGTATGAGTATGAAGATTTTGCCTTTAGTTCTGAACTGAACCT
GCTTGCTATCCCTTCTCCTCCCCACCACTACCTTATTCTTCTGCTCCAAATTGCCAC
TTTGTTTTGAGGCTTCCTTCCCTACCTTATTATTCTGAAGGAAGTAGAGATCTTGCTTCT

GAAACCCCTCCTAAGAAACTGCCAGGGACAAGATAAATTACAAACAATTCATGGGAGTT
TACTACCTAAGTTGCTTCTAGGGCATATGTATACCATACTAGTAGTCTAGATTTCTGG

AGGGAGTCGCCCGCGTCCGGACAGGATCTATGGATGGAAGAAGATGAAAACAAACACA
CAGCCATAAAGGTAATTGTTTCTGGCCAACATCTTTCTACTGATGCTTTGTTTTGATTGT
ATGTTGCTGTTTATATTTTCTCAAACCTTGAGGCTCTATTTTATGAAATGTTGAATATAAA
TACATTGTATTTAACTTGAAAAATTCCTGGAAATATACCTGATAATTACCACCTGAGGAA
TCGNTTTATTTTATGAAAGTAACAGCGTGATGAATACTGTAATTACAAAAGAAAATTAGT
ACTCACTGACTTATACCCTTGTTTTTTTTTTTTTTGGTTTGGTTTTTTGGTTTTGN
TTTAGNGACA

GGAGTCGNCACGCGTCCGGCTGGCCAGCAGACCCTGCAGCAGTCATTGGTGGTTCTGT
CTTTCCCTAACCCCTTATGNGCTGGAGGACAGAGGAGCCACCTCTTCTCACTGGTTGATAC
TCTGTTCTTAAGACCTCAGGTTACCCAGTGTAGCCTGCTGTGACCCCTTCTGCTTCATTTT
CTGCCAAGTGATACAGAACCTTCTGTTCTGCTGCTTTGGGGACAGGTGATCCTAGCCCCAG
CTTAGGGCCAGTGCTCTGTGCCACTCTGGAGAAATAGGGAAAAAGATAGGGGTGGCTCAGT
ACAGCAGCCCTGTGAAAGTCAAGGCCAGAGCTTTTCTTTTTTAATTTTTTATTATTATT
ATTATTATT

TTTAGGGAGCCGACCCACGCGTCCGCTTGGCAAACCTCCGGGGACTGTGAGAGGAGGAGA
GGAGCGAGAAGGCTATGCTTCGCTCCCGCATTGAAGAGCAGTCCCAGCTCATCTGCATCC
TGAAGCGGAGGTCAGATGAGGCCCTGGAGCGCTGCCAGATCCTAGAGCTGCTCAATGCAG
AGCTGGAGGAGAAGATGATGCAGGAGGCTGAGAAAGCTCAAGGCCCAGGGTGAGTACAGTC
GGAACTAGAGGAACGCTTTATGACCTAGCAGCCAACCACGAGTTGATGCTCCGCTTCA
AGGATGAATACAAGAGTGAGAACATCAAGCTGAGGGAGGAGAATGAGAAGCTGAGGCTGG
AGAATAGCAGCCTCT

CCACGCGTCCGCTTAGCCGCTGCCAGAGTTCATATGTTCTGGAACCCCTTGACTCCTAGA
GTTCAGAACCCAGCCAACCTTGAGTTTTCAGAATGTTCAAGAACTTCTGACACTCAGAG
TTGCAGAACCTCCTGGTCCCTGCAGATTCTGGAAATCAGAATATGGTGGTTGNAAGAA
TCTTGTGGCTGGGCGTGGTGGCTCACGCCTGTAATCCCAGCACTCTGGGAGCCGAGGCG
GGCAGATCGCTGAGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGCGAAATCCCGTC
TCTACTGAAGATAACAAAAATTAGCCGGTCATGGTGGCGCCCGTGCCTGTAATCCCAGCT
CGGCAGGGCCGAGGCAGGAGAATCGCTTGAACCCGGGAGGCAAGAGTTTGCAAGTGAGC
CNAAGATCGAGCCACTGCACTCCACCTTGGGTGACCAGAGTCTTAAAAAAAAAAAAAA
AAGG

CGTNCGGTGAATATTCAGTAAGCTAATTAATAATTTGTAAGTAAGATTTCTTATTAAAAA
AACTATTAAAATAAGANGAAGCCCGTTNAAATAATNATTAGAGNNGGAAAAAGAAAGATG
ACTATCNAATTACAGCACTTTTTTTCAGCTATACATAAAGGCCTTTTCANT

CGTCCGGTGACCCATT AAGTATATTTCTGACCCANAGTTTGAAAGAGATTATAGGTGTA
GCTTTGCTAGTTTGAATTGATATAGAACAGTGACTATCAGGGAAGNTGAAGAACGGCNA
ATTGAATGTAAATCATGTCTGGATGGTGAAGATTCTAAGAATGCANCTAGGGAAAAGGGCT
GCAAAAAGAAGGTGGCAGACTAATGTAGAATGGTGCAACCAGATGAAGACATGGGTGGCT
TTAGGAATTCCAAAGTGGCCGTGAAGGCCAGGCACGGTGGCCCACGCCTGTAATNCTAGC
ACTTTGGGAGGCCAAGGTGGGTGGATTGCTGAGCTCGGGAGTTCGAGACCAGCCTGACCA
ACCAGGTGAAACACCATCCCTACAAAACAT

GCGGGGCGGCGGCGGCGGCGGCCGGGACCCAGCGGGCCAGGTGGGGACGGCGCGTNGCGGG
TGCGGGAGATGCCGTGCGGGACTGGGGCCACNTTGAGCCGCCCGNCTCGTCCCCGCCTTC

TABLE 1
32/467

TGTGGGAAGGATGTGCGCGCGGATGGCCGGTCGCACAACAGCGGCCCTCGGGGGCCCTA
CGGCCCTGGCTCTGCCTCCTGGTGGCCCTCGCCCTGGACGTCGTGAGAGTGGACTGTGG
CCAGGCTCCCCTGGACCCTGTC

Sequence 176

GAGCTGGCTGGTGTGTTGAGCTGTGGCAGAAGCACCTGGGGCTCCAGGGAAGCANGCTGGG
AACTGCAGGACCTTGCTCAGCCAGGAGCACTTCCCCCTCCTTGAGGCAGGAATACTGAGG
TGCCTCCCCACAGATGGAGAANGTGGAGAGGAGGATGGGCCTCAGGAGCATCTCAAGCCC
CAGTAGCAGGANAAAGAAAGAAAGAGATGCCTGGTTTTACAGACTGGTTCCTGTGGCTG
GGATGACTGCATCCTTTTTTTTTTTTTTTGAGACGGAGTTTTGCCTTTGTGCGCCAGG
CTGGAGTGCAATGGGGTGATCTCGGATCACCGGAACCTCCGCCTCCNGGATTCAAGCAAT
TNTCCGCTCAGCCTCCCGAGTAGCTGGGATTACAGGCACGCACCTCCACCGTNCGGCT
AATTTTGTGTA

Sequence 177

CCTTGTNAGGGGACACAAAGAAAAATTGAATAAACTGTATGATTTAAAAGATTATCGGGA
GAGTTACCTCCCGATATAAAAGGAAGGATTTACAGAATGTGACCTAAGGTCTGGCGTAAA
TGTGCACCGGAACCGAGAAGGCCCGGATTGTCATGGACGATGAGATACACCGGAATATCA
TGGACATATTCTTTAAAGCGCCCTTTATCTTCAAATGCGGCACGGAAACCGGAGGCTTTG
AAGAACTCAAGGAAGCGCGGCACGATACCGCCCGCAATAAACACGCCGCCAAATGTCCCG
AGATTGAGCGCCAGATTGCCGCCAAAACGGCCCATATGACGCAAAACAGCGACAATGCG
CGGCGGCAATCGGTGCAAGCTGTCAGCCAGCGCCGCGTTGCGTAATATCTT

Sequence 178

CACGCGTCCGACCGGAAATGCTGACCTGACCTTTGACCAAGTACGNGCGGTGGGGGGGGG
GGACAAGTGGGGTGGTGGTATTAAGTGGCTCCGGTGGGTCTTCAAGCCCCAGGAACCCTC
CAAGGGGGAAACAAATGGAGGGCCCTAACGCAAGAAGCTTCAATCGGTCCCTTGGAAGTGG
GCTTCTTTGCGGTGGGTGGTGGGTATGGCCCTGGGCTGGCCTTTNCCTNAATCTTTCCTT
CCCTNCCTGGGGGCAATCTGGCTGGGTGGCCAAGTGGCTTGCCCCGGAACAACCTTTGGC
TGGCTGGCTTACGGTCAANGGGTGGCCCTGGCTTGCCCCAAGAACAAGGTGGCNTTGC
TTTGCCCCCGGAAGGGCCCTNGTAATTGCCCGGCCCGGGCCAAAAAGCCAAGCCACC
TTCAAGGGTGGTTTTCCCAAGCATTTTTAATTGCCCCCCCAAGCAACCCTTAATTGCCCAA
CCCTTGTTCTTTCCCGGCCCAAAAGAACCCCNAAACCCCCCAACCAAGCTTATTGGA
ATTTTCCCAATGGGGGCCCTTGGCCCTTACAAAACCGGGGGTTTACCCCTTTGGGG
AGGGGAATTAACCCCTGGGGAAGGAAACCGGTTTTTGACCANGGGGAAGGTAAGGCTTT
AAANCCTTGGGGTNGGGGCCCAAAAGGGCTTCCCCTAAATTGTTAACCCCTTGGCNTT
TT

Sequence 179

CGTCCGGAAGAACTGTTTCATCTACTCACTGTAGTGCCCTCCTTGAAATGTGTGTTTGTCA
TTCAACTAACAATATTTGGGGATCCCTGTAGTAAACACTGTATGAATTTACACAGTCTG
GCCATCAAGAAAGATCACGGAGTATATTCTAGATGGGGAGGCTACTAAGTGAATAGGAAT
CACCACGCTGGGCTGTTTATTAGGTACAGTAATAAACATAAGTACTGGTTGCAAAANAAA
ANAANAAAAANAAAAAA

Sequence 180

CCNCCGCGTCCGAAAAGACAAGACAGCATACTGTATTTTCTCTTAAATTCATGTGTA
CAATTAAATGATTGTTNTCTGAGAATAAGTTAGCTTCAGCTTTCTAATCGATGTGTTCCC
ACATCTACAAATTGATATGAAAAATTATTTGAAATGCACACTGCAAAATGGTGAGAATA
TGAAAGTTACCTGGGAATTAATCAGAACTGTCTCCATATGACTATTTCCAAGTCACAAT
CATACTTTCTTAATAGCAATGGTTATATATGTGGCCAGATAGTATTCAGTTTCACAGTA
ATGTCTCGGTCACATAAAGATAGCANAGCATAGACATAGTACAACAATTTATTATTTCTG
CTGATTGCCAAATGTGCATAAACTATAAAGATATATTTTCCAGCCCAGGTGACAGAGAC
CCTGTCTCCNTTTTNAAAANCTTCATGNTAAAGGTGCGGCCGCTAGACTAG

Sequence 181

CGCGTCCGCTAATCAACTTTTAAAAATAATGTTTTACGGCCGGGCGCGGTGGCTCACGCC

TABLE 1
33/467

TGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGGAGATCGAGA
CCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCCGGC
GTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGATTTTTTATTTTTGAACT
TTTTACAGAGAAGGGGGGTCTCCCTATGTTGCCAGGTTGGTCTCAAACGTTTGGGCTC
AAGTGATCCTTCTCACCAAGAGTGCTGGGGATTATAGGCATGAGCTGCTGTGACCGGCC
AAAATCAAATTTCAAACCTAAAAAATTCTCAGATAATTAATGAACCTACGTGAATTAAT
CTACAAATTCAGTTTGAAAAACACTAAAGATAAACAACGTCAATGTGGGAACTTAA
AAGTANGTTGGTATTTAGGTTATTGGTTAAATGGGGGACCGACTGGCATACACAGTCCT
AAATATTTAAGTCTTAAG

Sequence 182

CCCTATCTTNCGGTACTGGTGGGCCAAATTCCTGGGACCAGGTCAAGGTGGGCTGCCTCA
GTAAGAAGGAAGGACTGGAGAGTGCCATTTTCAAGAGGAGCAGGCTGGTGGGGGCCAGCCA
GAAAGTAGTTCCCTTTGGGGGGAAGATGTTGGACCTTTATTATTTGTGGTAACCAGCCGA
GGCTGGTTGTCAGGACAGCAGGTGAGCCACTTTAGGGAAGAAAGTGACGGGGTGGGTGGA
TGCCAGATTACCAAGGCCAGCCACCCTGATGGGGTAGGGTCTGGTTATCTGTGTTCAAG
AAGCAAATCCCACCCAGCCCCAGCACTAGCTCTCTATGTATGTATTTTCCCTGTACAAT
GTTTTATAAAGAGATCATTATTTAAAAAANAANAANAANA

Sequence 183

TCGTCCATTTACCTCACTTATGGGGTAAAAGGTCACTTCAAGTAAGGTTAAAGGTTTTCC
CTGGCAAAGGACCTAACCAGAGCCCCNAAGGGGGGAAAAAAGGAGGTCACTTTGGGGA
GGTACCATGGCCNTTTTGGTCTGGCCNNTTGGGCNTCTTCAACAACAAAGGAATTTTT
ACCAGGCCCTTTTGGAGGCCTTTGGATAATTTCTTAAGAAATTTGGTTACCAGGAAGAAT
TAGGCTTONTNGNAAAAAGGAAAAATTAGGACCTAGGAAAGGGAATTAAGGGGGNAA
GGGGAATCAATTAAGCNTTAATGGAAAGGGGGTTTTACTTCTGGCAATCAAGAACCGGC
TTTTCNTAAGTTTCNTAATGGAACTTTAAACCGGTNCCTAATANGGGCTNGTAAANGGG
GTTCTCNTGGCGGTGGNAAACCACCTTCTTTTTCTTNGGGCCCTTCCCTTTTCTGNCC
CCCAATTTNCCCTTCTTTNAAACCCTTCAAAGTTTGCCCTTGGAGGGTTTTTAATTAAT
CCCCCTTGGTGGCCANTTCCCTTGGGGGGCCAATTGGGTTTCAATTTCCANCAATTANTG
GNAAAAACCAANTCCAAGGGGAAGGGACCCCTTNGGGCTTAANTTTTTCTTTTAAAT
CTTCTGGGAATTTTNGGATNGGGGGAAAAAATAAATTAAATTCCTTTTGGGGCG
CCCTTGGCCAAGTNGGGGGGAAAAATAATTTNGGNTTTTNGGGGGGGGGNTTTGGGGA
ATANCCTTACCAAGGAACCCCTTCTTGGATNCCTTTTGGGGGTCTTTTCAAAAAAT

Sequence 184

GCGTCCGGTTGTAGTTTCCCTTCCATTCTCTTGGTGGCCCTGGAAGCTTCTAGGCACAA
GTGTGCCACCCTGATTATTCCNACCCTCCATCCAACCTTTCTCTCTGTGGGTGTCTG
CACCACAAGCTGCCTACCCTCCAGGTGCCTCAATGGTCCGGCCACCAGTTGTGCCTCGGC
GCCCCCGGCCACATCAGCAAGTGTGAGGCAGGCTCCACCCAGGTGCCACGCACGGTG
CCTCATACCCAGAGAGTAGCCAACATTGGTACTCAGACCACAGGACCCAGTGGGGTAGGA
TGCTGTACACCAGGCCGGCGCTCCTGCCGTGCAAATGTTCTCAAGCAGCACATAAGCA
CCTATCGGGTCCAGGAGCCGGCTTGTGCACATNCCAGGACAGGAGCCCTGACCGCGTCC
ATGCTGGCTGCGGCGCCCTGCATGAGCAAAAGCAGATGATTGGGGAGCGTCTTACCCC
CTTATCCATGATGTCCACA

Sequence 185

GTCGCCCCGCGTCCGGGCATTTGTATTTTCAACAATTGTTCTCAAATTTAGAAAAGAGAC
ATCGCAAGATGGTGAAATAGGAAGCCCTGGGCCCTCCTTCCCTCCACAAACACACTGATT
TGACAACAGTTCATGGACAGATTCCCTTTATAAGAAACCAAGAACTGTTAAGAGGCTCT
TATACCCAGGTGAGTGCAAATCATCCACATCAAAGATAGCTGGGAAGTTCAAGACACC
TTCTTTCCGTAATTTCTAACTGGCACAGTACTATATGATTGAGATGAATCTCCCCACAT
CCAAGCTTCTGCTGGGGAGGAGAGGGGAGGGTATACCATTATGTCCAATGTTCCAACCTC
CTCTAGGAGCTACCCAGGTAGGAGGTGGGTCCAGCTCTGTCAGGCTTGTCTTAAGAGCAC
TGATTGAGGGTCTGGTATTCTCTAAGTGGCCAGGACCATAAGAGCAGTGGATGGTGCTG

TABLE 1
34/467

GGGNTNNGNNGTGGGTTACCCATAACCCCTGGTTTTTGG

Sequence 186

TCCGAAGCAGTGAAAATAGTGTGTTGACTCCATTGACAACCTAGAGGCGGCTCCTCATGAT
ATCGGCTACGTCAAACAGGCCATGTTCCACTATTTCCAGGTGCCAGATCGGCTAGGGATA
CTCACTCACCTGTATAGGGACTTTGATAAATGCACGTTTGCTGGGTTTTGCCGAAAAATT
GCAGAATGTGCTCANCAGGGAGACCCCTTTCCCGCTATATCTTCAGGAAGGCTGGGGAG
ATGCTGGGCAGACACATCGTAGCAGTGTTGCCCGAGATTGACCCGGTCTTGTTCCAGGGC
AAGATTGGAATCCCCATCCTGTGCGTGGGCTCTGTGTGGGAAGAGCTGGGAGCTGCTGAA
GGAAGGGTTTTCTTCTGGCGCTGACCCAGGGCAGAGAGATCCAGGCTCAAACTTCTTCT
CCAGCTTCACCCTGATGAAGCTGAGGCACTCCTCCGCTCTGGGTGGGGCCAGGCCTAAGG
GGCCAG

Sequence 187

CGTCCGCGTCGCTCCCTGCTCGGGGTCAGCTAGTGTCCGCTCTGCTCGGCCGCGGGGCTC
CCGGAGGACTGCAGGCAGGATGACCGCAAAAACACGGGTGATTGGTGAATGGAAGTTGCT
ATGGGCCTCTAAGGGCCATCCCAAGCCCAACCCAACGTTAAACGGTCCACAATCCACCAA
GGAAGTCAAGCTTTTGACACAACTGCTGAAAAGCTGGGAGGGTTTCTTCTGAAAGAAAG
TTTCTTTTTTCAACCCTGGGGGACACTGGTGCCCTTTCCACAAGCCAGGGAATTGGGTTT
ATGAAGCAAGCTTGGCTCTAAGGGGGGTGACCTCAAGATATTTGCTGGGGGGTTGTGAGG
TTTGGTGGTTCTTGGGAAGTGTGTCTCAAGCTTTGGGGGCCCTGGAAGTGTGCTTGAAGT
GCCCTCAGGCCTGTGCCCTTCTGGGGCCGGGGGTCTTGTGGGTGNATNCGCAAGCANGGA
AGCCTGGGGGCCATTGGTCCATTNAAGAAGGCACCCCGGGGCCAAACCTTGCTTGGCTAT
ANTATTCCAAGCCTGCTTCAACCCNTGGGCAGGCTTT

Sequence 188

TCGACCNCGCGTCCGGCTTCGACGCCTTCCCTAACATCGAGAAGGTGTCCAAGATCACGT
CTCCCGTGCTCATCATCCACGGCACGGAGGACGAGGTGATCGACTTCTCGCACGGGCTGG
CGCTCTACGAGCGCTGCCCAAGGCGGTGGAGCCGCTGTGGGTGGAGGGCGCCGGGCACA
ACGACATCGAGCTCTACAGCCAGTACCTGGAGCGCCTGCGTCGCTTCATCTCCAGGAGC
TGCCAGCCAGCGCGCCTAGCGGCGGGCCCCAACCGGCCGGACCTCAGCAATAAGGCGGCC
CCCGGACCTCACCCCGCGCCGGCCCCCACCCAGGGGCTGCATGTGGACCCCCCGGGCGGC
CCAGGGGACCCCGCCCCGACCCAGGGGCTGTGGACGATGTACAGGCAACAGAGCTACCGC
ACTCTTTTCCCTTTTGAAGCAAGAAGAAAATACGTGAAAACGGGAAATTAAGATTTAA
AATTTTTTNNNNNTNNANAAAAANNAAGTGCGGC

Sequence 189

CGCGTCCGAAGCCTTTTGTCTCAGAGAATTTATTGTCTGACAGCAGAGGCCGATGGTGG
GATCGACTGGCCCTTAATTTACACCAGCACTTGAAGCCGCCTGGAACCCGACTATCAAGT
GCATCACAGAGGGGCTGGCGGATCCCGGAAGTCAGAACGGGACACCGNCTTTCACTGTAT
CAGCGAGCCGTGCGCCTGCGAGAGTCTCCGAGCTGTAAAAAGTTCAAGCACCTCTTCCAG
CAGCTCCCAGAAATGGGCTGTGCAAGATGTGAAACACGTGACCATCACAGGCAGGCTGTG
CCCACAGCGTGGGGATGTGCAAGTCTGTGTTTGTGATGGAGGCCCGGGGGAGGCCGCTG
ACCCACACAGGTCTGTGCTCTGTGGAGGAGCTGGCACTGGCCCATTACAGACGCAAGC
GGTTTTGACCAGGGGATTGATGGCGAAAGGGTCCACCTTCAGCACCTTGTATGGCCTTC
TTNCTGTGGGGACATCATCTTCATNGGATGGGATTCCCGGATGTCTTCAGAAACGCCTGT
CANGCATTNCCCCTGG

Sequence 190

CNACACATGCGGAATCATAGGCCTGCAAAGCTCCTGCTATTCATACTATACTCTGCCATGC
CTTAGGCACTTCTTAACCTAGAATTCTGAGTGAAGGACAACAATAACTAATACTTTTGAT
TCAGGTATTACAAAGAAGTTAAGAGTTCATAAGGCACCTAAGTAAAGTCACATTGGTTAA
GAGTACATGTCTCCAGATACTCTTACATTTGCAAAGNAATTGCATTTCTGNATCTATGGT
CTGTAAATAAAATTGAAGAGTTGNGAGAATAAAAGCATGTTGTCTTTGATAAATTGTTTT
TACAAAACAGGCACAAGAGAGGCTTGAAGGGTCCTTGCTATCTTTTAACCTATTTTATAA
TCTTTGCTGCATAAGAAACAAATATGCTTATTTACATTCTATACTTAAACATATTATCAA

TABLE 1

35/467

ACTTTTATTCTGAAGATAATACACATGAAGGCTTTAACTTTAATCTTCAATATATTTTT
TAATCTCCCTGATGAATTAGGGAAATAAATATTGGG

Sequence 191

TCTCCCCCTTACCCTCCTTTTTTTTTTTTTTTGTTTTTCTTAAAAGCATTTAGCTGG
GTGCAGTGACACATGCTTGTAAATCCCAGCTATTGAGGAGGCTGAGGTAGGAGGATTGCTT
GAGTCCAGGAATTTGAGGCCAGCCTGGGGAACATAGCAAGAGCCTATCTTAAAAAAAAA
AAAAAAGCATTTCAATTATTTAAATTTNTAATTACAAAACAATTCTTTCCTGTCTTAG
TTTAGTTTACTTTTTACTCACAAAGTTCCTGGAAAGTAGTTATTACTCAATAATTGAATG
CATGAGTGTCAACTGCAAAATCTATGCATTATGTAGNGATTGAATCAATTAGTCTTTNT
TGATACTCCAAAATTACCCTTTTTCGAGNGTCTTTATCANAAATTTGATAAATCGGAACT
T

Sequence 192

TCCGCCCCGTGAGGGGCAGCTGTGGTGTGGTGTGATGATGCTGGGATAGGCACTCAGATG
GTTGAGTCTGAGTTTGGCTCTGATATTATATCAACTGCATGGGCAGCTGTGGTGTGGTGT
GATGATGCTGGGATAGGCACTCAGATGGTTGAGTCTGAGTTTGGCTCTGATATTATATCA
ACTGCATGGGCAGCTGTGGTGTGGTGTGATGATGCTGGGATAGGCACTCAGATGGTTGAG
TCTGAGTTTGGCTCTGATATTATATCAACTGCATGGGCAGCTGTGGTGTGGTGTGATGAT
GCTGGGATAGGCACTCAGATGGTTGAGTCTGAGTTTGGCTCTGATATTATATCAACCGCA
TCATTTTGGGGAAGACACAATTTCTCAGAATTTATTTAAGTTGTAAAAATAA

Sequence 193

ACACATTGCGGCACCGGGCTGGGCCTGGCCATCGTCAAGCATGTACTGCTGCGCCACCGC
GCGCGCTTGAAATCAGCATGTGTGCTGGGCCATGGCAGTACGTTACCTGCCATTTTCC
GCCAGCTCAGGTGACGCGCACACGGCTGGTGGGAATGATGAATAACCTGAAGTGACGAC
GACCCAATGTGGGAGCTGCTGATACTTTGCTGTCTCCGCCAGCAGTGGGCACTAGGCAA
GCGCCCCATCAGCCGCTACATTGGCCGACTTGCGCCTGCCTTTCAGGCCCTCTCGTCACC
CCTTATTGAACACACGGAACCTGCAAAACCCCATCATGGACCCTTCCCCTGGTATTACCC
TCGCTACACTCTTCGCCGATTTGGGCATGATTCCTTTTGCAGTATCCTGGTACTGCTCA
ACGGTTTCTTCGTTGCGGCGGAATTTGCCATGGTCAAACCTGCGCTCCACCGGGTTCGAGG
CCATTGCCACACCAACGGGCTGGCGCGGGCAGATCCTGCGCACCGTACACAGCCAGCTC
GACGCCTACCTGTGGGCTGGCAGCTGGGGTATTACCCTCGCCTTCCTGGGTTTGGGTTG

Sequence 194

TGAAATCTCCTAATACACTGNGTTTTTATTGTTATGTATTCTATGTTTTAAAGCTCCTCA
AGGTATTGTTATTCTTTGTATAATCAGTGTTTGGTGGAGCTGTCTGTAAATTTCTCTC
TTTTTGCTCTTTATTTTTCTTTCAACTCAGACCTTCCAAAATGGGATTATTTTCTTT
TTTCTTTAGAGACATTTGCTTGATAACAGAATTTAATTTGGCGGCTATTTATTTTTTTC
AGCACACTGCAGGTATTAAGTACTTGGCTTCATTGTTGGTTTTGAAAAATCAGCTGTTT
TAATGTTGCTCTTTGAATATAATCTGCCTTTTTCTGTACTTGCTTGNCTTTAAGTTTTT
GTT

Sequence 195

CGCTCCCTGGTTTCTTGTCTCATGAANAAGAAAAAATCCTAACTGTTCTTGATGATCTTT
AAGGCTCANAATGATCTGGACAGAGGTATTTACCTTGAAGCTCATAAAGCATAGGCCCTTT
CTCACTTGACAGATATCTTTCTGAAGCTGGACTAAATTGGTTAAGGCCACTGTACTTTTC
CACTTTGTCTTTCTTCTGTACACACCCTATCCTTTCAGGCTGTGTTGGGATGGACAAA
AGCAGTTCTGGAGTCTAAGGAGAAGATGAGTGGGATATGTTTCTGTGACCTGCAGTCAT
TTTAAAGTTTAGCTGTTGCTAGCTGACTCCATGTAAGAATACCTTCCAGGAATTTGATGG
CTGTGCACTCTGGCAGTGCAACTGGCATGGT

Sequence 196

CNCGCGTCCGGCCCTGATTGATGAAGCACAGTCAGTAAATCATCTCTTCATTCCCCAGTT
CTTAAGCCAACATCAGCAACACTGAGAGAACATTAGATTAAAGGCAGGTATAGAAGAGAG
ACTTAGGGTAACAAGTTAGTGGGTGCCTGAAGGCATGTGGGAAGAGATGTGGTAAAGGTG

TABLE 1
36/467

TGCACACTATTCCTTACGTGACTTAAAATGTCAAGGGGCTTGGTGTGGTGGCTCATGACT
GTAAACTAGAGCACTTTGGAAGGCCAAAGCTGGAGGATAGCTTGAGGTGAGAAGTTCAA
GGCCAACTTGGGCAATATGGCAAGACTGTGTCTCTACCAAAAAAAAAAAAAAAAAAAAA

Sequence 197

CCGTCCGGAGAGGCTGTTNTTGATNGATACTCCAGAATAGACACGGGCCCTTGAAAAGCT
TGTACCTTTGGGAAAAGTAGACCAGGAAAATCTCAAGCCAGAGAAGGACTATGAAGCTT
CTTTTTCCAGTTACACATGGAAATAAGAGGTCTTGCATGAGAAACCTAAATCAACCCCTT
TNTNTTAAAGCAGTTTTGGAGTCTAAATTTATACTAATTGCATTGTGGAGCAGGTCTAG
CCAAGAAATTAACATGACAATCAGTCTCTAATCTGTCTGTCTATCTACTTACTTACCTAC
CAGTCAGGCCAAAGAGATTCCCAAGTAGGTTAAAAAAGTAAAGTCTGATAACAAATA
ATTAGTAAGAATGAATGAATAAATAAGCACAAGGAACACTCTACCACAAGGAGGAG
TACTCATCATCAAATGAGAGAATACCCTAAGAAAGTGAGATAATGCCAGCAATCTGAA
AGATATTTTACCNAACGTGTTTAAATGNTTAGGTTATTAATAAAAAAAAAAAAAA

Sequence 198

CTAAGCTGTTATTTTCCCTAAAAATGCTTCCCTTGCAATTTATACTTATTAAGAATAGATA
ATAGCTAACATCTATCCACTGCCTTTGATTCATGAGGCCCTCACGAATTGCCTCATTAGG
TCTCCGACAGTATGGTACAACACTCTTTATATTTTACAGATGAAGAACTGAGGCTGGA
CTGNTACCTTTTTGCTACACATCCTAATG

Sequence 199

AACCTGTTTTGTTAGATGTGAATCTAGGAAATACAATATATTTTAAATGTAAAAGNACTC
TTGCTTTACTTGTAAGTGAATTTTCGTTTTTTTCCCCTCAGGCCATCAAGCCCTGTGCTC
CTATGACCAACAATGCTGGCAGACTTTTCCACTACCGGATCACAGTCTCCCCGCCTACGA
ACTTTTTAACTGACAGGCCAACTGTTATAGAATACGATGATCACGAAGTATATCTTTGAA
GGATTTTCTATGTTTGACATGCCCCCTGACCAATATTCCACTGTGTAAAGTAATTAGA
TTCAACATAGACTACACCGATTCAAT

Sequence 200

AATGCAAGAACATCTGGATNAAATGGCTTTCTAGATGAGAATGGTTGCATTTTTTAATGG
CTATTCTGGTAGAAAGGACAACATGTGATATTCGACCCCTCTTTCTCAGACCCCTCTTT
ATAACAGCTAGTATGGAAAAATCTGTCTTTTCTATAAATATTTTCCCTGGGGAATGGNTT
CCCATTAAATGTGTNGGATGCTTTGNTGTTTCTCTTGCACAGCGTGTATGTTGTCATCT
GCACCTTAAGAAAGTGGAATGGAATGGAATCCTGGTTTCTTGTCTGGCTGGAGGTCCCA
AGTCCGCATTGTGATTTTGGGAAGTCACCGTTGTTCTTCTAGATCTAATTTAACTCATCT
GTAAAAANAANNNGGNTNGAATTCCGACAATTTTCATGGGTTTCATTAGATGCCAATATTTT
ATGACTCATGATCCCAGCNAGACTACACCTATTTATAAGGCTGGTTTTGCTGTTTTTAC
TAAGAGCAACAATNACTACATATTTTCAGGTTACTCAATCATCAAAAAATTATAAAATC
CATAAACACTTTGGATTTGAAACATTGCAACTTTG

Sequence 201

CGTCCGAAAAGCAGTCTTTCTTGCTCAAAGTATTAANGGTGAACAATTGAATAGAGTACT
GTGGTCGGGAGACTGATTTGAGACTGCAGAGCTGATGCTGGGTAGAGGGTCTGGACTTGT
ATTCATGTTCTGTCTCAGGGCAGCCCTGGAGCAGGAGATGGCAGAGGCATTTACAGCTG
CAGAAAACAGGGAGGAATGGAATCTGAGGTAGCCCTGGCCTCAAATTCAGGCCTGGCTG
TATCATTTACAGAGATTTTCTGGAGGGAAAAAGTCTCATTTCTGAGGAAGGCAAGGNGG
GCTAATCATTATTAATTTTTTTTAACTTTTTG

Sequence 202

GCGTCCGGTTGAAGAGGGCAGGGAATAGGGGTGGGTGAGCGTGAACAGAGTCAGGCTGAT
TGCTGCAGGGTCCCTTGCAATGATTCAGGTGAGAAGAGACCCGAGTAGGCCAGTGAGCCT
GGAGGAGAGGCTCTCTGTGTGTTTAAATGGTTTCCAGCTTTTTTTCTCTATTCATGTAGG
TTATACACGTTTCTTCTGTGAATTTTTATTTAAATGATTTTTTGTGTTACTGGATCTAC
AAACAGCCCAACTCCAAGGAATCTGGCATCTCTCAGTGGAGCATACAGGTGACTTCATAA
TCTAACCGCATTAGTAACTGCCAAAATCGGAAGTAATTTCTCTCTGTTTAAAAGGCAGTG
AAACAAATTTTACAGAGCAGGTTTCTTCAACTGAACAAAATATTTTGGACCTTAAAGGTGG

TABLE 1
37/467

TATGGCTCTCCTGATCAGGGAGGGACAGTGAAAGGTTTGAGCTCTGACACTGNCCAGCTC
TCTGGATACAACCAAGTGACTTTTTTTTG

Sequence 203

CGCGTCCGAGTATATAGAAAAACCATTAAATTTAGACTCTGTGAGATTAGGTTGCATGAAG
AAGGTTTTCTGAATATTTGAAGAGTGGATAAATAAATGTCCCCAAAGCAATAAAATCAT
AATCCTTTAAAATATAGGAAAAATAACTAATGGGAACTAGGCTTAATACTCGGGATGAAA
TAATCTGTACAACAACTCCCATGACACATGTTTACCTATGTAGCAAACCTGCACATGTA
CCCCTGAACCTTAAAATAAAATTTAAAGTAATAATAAAAAAAAAAAAAAAAAAAAAA

Sequence 204

CGCGTCCGCTGGGAGGCTGTGGGGTCTGCCACCCAGCAGATCTGTGTCACGGGAGTGGCG
CTGTCACTCGTTGAGGTGGTGGCCTGGTTCTTTGGCCTTAGGGAAGGACAAACTTCAAC
TCTGAGCCTTGATTGAGTGACCTTGCCAAGTTACCTAGCTTTTCTGAGCCTCACTTTTT
TGGCNATTAGATGAACCAGAGGTTTATTTCACTCAGAATCCTGTTACGATGCTGGTATT
TGGACCAGCCTGCGGGTTTATCCTGGGCTCTTTCTG

Sequence 205

CGCGTCCGAAAAAGGATGAGAAGAGAGGTGCATTCCAGAAGACAAAAGGTGTGTAGTATC
AGGATAAGGGGCTTTAAATATCAGATCCAGAGAACACTGCACATGTAGAAATGGGCTTGG
CCTGGGTCAGGGCATTGAGATTGGTTACATAATCTTTCAAGGATTGGTGAATGAGTTGG
AGTATGTGTAGAAACCTACAAAGATGACAGTTTAACTCATGTGCATAATTTTTAGACAAA
TAATGTATTTTAAACTGGGTGCAGTTCTTAAAGCTGTTCTAAAAGTCAATGCAACTGAA
TTTGGAAATGTAAGCATAGGACAAACAGATGGGAAATAAGTCATGACCTCTGTGGGATAAA
GTGAGAGTTATCAAAGAATGTCAGTGTTTATAACAAGGAACAAGCTTGTGTTTGGAGAATT
ACTAGATATTATGGAATAATTTTTCTTTCTACATTTGGGTAAGTATAGCTGAACTATA
GCAGATCATATTGACTTGGCAAAAAA

Sequence 206

CCNCGCGTCCGGTTATGTACTTTTGGAGACTTCCATTAGAAATATTGGCAAGTCCCTGCT
TCGTGGCCATAGATTTAAAGGCCTATCAATTTTAAATGTTTCGGTCATTGAGAGCTAAA
ACATGTAACATATCACAGTGTTATTCACCAGAAATAAAAAATCAAGAGTCTGCTCAGAGT
AGGTTAATATGAGTTCCTTTCTTCAGTCCAGCTGATGGTTTTAGTAAGATGAAGTGGCA
AGGAGACAATGAGCACTGACTTCTCGATGCATGACTTCATCTTGTTAGAAGGTGGGTGTC
CGGGCCGCGGTGGCTACGCCCGTAATCCAGCACTTTGGGAGGCCGAGGCCGCCGGATC
ACCGAGGTNGGGGGGATCGAGACCATTCTGGCTACACGGTGACACCCCGTCTCTACTAAA
TATACAAAAAATTGCCCGGCCGTGGTGG

Sequence 207

CCNCGCGTCCGATGAATAGTTAGCCCATGATAAAGGAATAAAAGGATGAAGAATATTTGA
AGAGAAATAAATCTTCTCACTCCTCAGGTTCCCTTCCATGTGCAGGAGCCTCAACCTAC
AACTAGCAACCTTATCTCCTGACTCATTCTCTCTAGAGGAGGAGTAAATTAGTCAACTG
ATATGCTCTGGAAGAAAAACCCA

Sequence 208

CGTCCGGTCTTCTCCCTCCCTAAATAATGCATTACAAAGTGGAATGCAAATTTCTGTG
CAAGCTCTAAGTAGCAGGTGGTATTTCTTAATATATTGTTTTGACCTTTGGGGAAATT
GGTATTACGAGCTGACTTTGGAATAAATAAGCATCAAGGTCTACATTTTAAATAAA
ACAATCGATATCTTAATTTTAAATCAGACTAGATTACGATACCAGGAAAAGACATACA
TATTTTGCTTTTATGTGTTAAAGTTTGTAAATTCAGGGAGGACAAGAAAAGGGATATGGT
GCAGCTGAACTTTCTAATTCATAAGACAGGAAAAAAAAAAAAAAAAAAAAAN

Sequence 209

CGTCCGGGAAAAACAAGGGTTCCGCCAACAGGCTGAGAGCAAAGGAGGACGCAGGAAAA
CTATTTTAAAAATTGACCCAAGAGTTCAAAAGGCATATGGAAGCATTTAATGGGGGTGGG
AGGTATCCTTGTAATAAGAATACCATGCATGTATTCCCACTGCTCTTGGTGGTCTGCA
AAGTGATTTTCATATGTATTTTATGTCAACACCAGCACAATGAGGTAAGTAGGACTGTATA

TABLE 1
38/467

CCTCAGAGGCATTTGGTGATTTGTCAGAGTGGAGTGTAGTGTGTTGGTGCCCAGATTTGA
ATAGGATCATTTGAGTCTGATATCATCATGTTGCCACCGCCTACTCAGCCTCTACACCC
GATGAGGCCAATCTGCAGCTCACTACAGTCAATAGAGAACAGGCAATTAACCCCTTAAGTT
ATATTTTAGAAAGATTTCTGTCTAAAATAGATAAACTTGAAAGTATAGCTCTTCAAATA
ACGTATTCCTGTGTTGGCAAATATTTTCCAACTCACAATCAACACATAGGTGTATTTCT
TAGACTACTAGAAGTGGGGACTTACCCCAA

Sequence 210

CGCCNCGCGTCCGGGAAAAACAAGGGTTTCCGCCAACAGGCTGAGAGCAAAGGAGGACGC
AGGAAAACTATTTTAAAAATTGACCCAAGAGTTCAAAAGGCATATGGAAGCATTTAATGG
GGGTGGGAGGTATCCTTGTAATAAGAATACCATGCATGTATTCCACACTGCTCTTGGTG
GTCTGCAAAGTGATTTTATATGTATTTTATGTCAACACCAGCACAATGAGGTAAGTAGGA
CTGTATACCTCAGAGGCATTTGGTGATTTGTCAGAGTGGAGTGTAGTGTGTTGGTGCCCA
GATTTGAATAGGATCATTTGAGTCTGATATCATCATGTTGCCACCGCCTACTCAGCCTC
TACACCCGATGAGGCCAATCTGCAGCTCACTACAGTCAATAGAGAACAGGCAATTAACCC
TTAAGTTATATTTAGAAAGATTTCTGTCTAAAATAGATAAACTTGAAAGTATAGCTCTT
CAAATAACGTATTCCTGTGTTGGCAAATATTTTCCAACTCACAATCAACACATANGTG
TATTTTCTTAGACTACTAGAAGTGGGGAC

Sequence 211

NCGCGTCCGTTTTNTTGGGATAGATTTTACCTATGAATTCCTCCTTAGAATTCTGAAAT
TGCTCAGATTTACCCAAATGACAGCCAGTTTCTCATTTTACATTTGGGGGCTGTAGAATC
TTCCAACATTGAGAACCTGTTTTAATCAAAGGATGCTTTGTGGAATCCTGAATGAGGAAC
AGCATGTTGCAGGAAGAAGAGAAGGATCCTGATGCCCTAATGGGACTGATTTCTTTTGG
GGGGCAGGAAGATATATATTGTTGGGTGCTTATAAAAGGTTAATTCCAAAGATTGTGTA
TGGTTAAAGGACTGAAAGTCACACTTAGCCTCATACTTCACTTAGATGAAAAACAAAGC
CTTCTCTCCATTACCTTGTAAGATCTATTCTTGTGTCTTGTGCTGAGTGGACCTGGAA
TAATGGATAGCCCTCACTGAGTACCTAGAAGGGGACTAGGGGTGGGTGATGAAAGGGGGT
TCACACCGAAGATCTAAGTGCTAGCTTGGGTA

Sequence 212

CACGCCCCGTGGCCTTGCTAGAGATCCATATAATGCAGTCATGCTGTTTCTTNTCCATA
GTATGTGGGGCATGAGGAGGAGACAGGGAGAGGGTGGCTTCATTGNGCAAANGNGGAATG
GCTGTGCTTTGGGGCCAAGGAGATGCTGTCTGCTGCTGCTGTGAAAGGTCAGGC
CTGCCCTNTGAGGCTCCCTTTATCCTCCTAAATTCTGGGGCATCTACATGACGCTTCT
AGTCCACCTTTGCCTNCGCAGATCATGGCTACTAACCTGACCTTTGTCTGTACTTGAGCA
CCCTTCGCGATTTAACTTNCATGTANCGTCCGACTTCTAATATGGATTTGAATTTNTTGA
CTGTTACTGCTCANAACAATCACCCCTTTTTTGTAGCAGNGAGCTGGNAGGATAATTGCCGA
CAAATGACATTNGGANCCGTTTTNAACCACAGGGGGCATGGGG

Sequence 213

CGATCATTTTATTAGAGTNATGTATTTAAGAACTGATAAATCATGGGCTTACCTACACAA
TGTCTAGACACATGAGCAATGAACAAATAGCAAGGTCTGTGATATCTCATATGGCAATAC
TAGGACTGAGATTATTTTTGTTACAATTAATAATTGTCAGTAAAAATCCACAGAGATCA
TTTGAATGGGAAAAAAGTCTGATATATTTGTTTCAGATTATAATCATTAAATAGGGTAC
CTGACAGTTTTCAAAGTTGTTTAAATGTTTTTAAAGTCTTTAACCTTCCTAATCCTACAAG
GTGGTTACAATCCACATATTATCCTTGTGTCAGGGGTCTCCAGCACCTGCCTTAGGGTC
AGTGATTTGCTAGAAGTACTTACAGAACTCAG

Sequence 214

ATCTGACAGCCTGGAACNGCACCCACACCCCCAGGTGAGAATCTGATGTTCTGGAGCATC
ACACACAACCACAGGTGAGCATCGGAGAGTCTGGAGCAGCACCCACAACCCAAGGTGAGC
ATCTGACAACCTGGAGCAGCACCCACACCCCCGAGGTGAGCATCTGACCTCCCGGAGCAGG
ACCCATACCTCCAGGCGAGCATCTGAACCATGGAGCAGCACCCACGCCCCAGGCGAGC
ATNTGACCGAACAGAGCAGCACCCCCCTCTA

Sequence 215

TABLE 1

39/467

TCCGGGAAAGACTCTGAGAAAGGACTCCTGACCTGGCTCTTCCAGAATGAGGATGGATT
TCCATATGAAGGAGCCGGGGGAGGACCTTCTGGGTAGAGCGTGAAAAGAACACAGTATG
TGTGGAGAGCGGGAAATTGTGTTGAACTGTCTAGAAAACAGAGCCACAGGAATGCGTGT
GAGGGCTTGGGCTGTACAGTGGAGAGTGCCCTCCCTGGCCAGGGAGTTGGACATTCATCC
CACCACAAGACCCCATGAAGAGTTCTCAACAGCTCTGTGTCCTCATCAAACCTGTGTTT
GCAGAACAGTGGAGGAAGAGAGCTGAAGGAGGGGAGAGGCCCTGCACCTGCCAGGCCCTG
GCCTAGACTACAAGGGTGAGCACTGAGCCATGCTCTCGGGGAACCTTCACTGGAGTTGAG
GGCAGTGAGAATGTTTAAAAAAAAAAAAAAAAA

Sequence 216

ACGCGTCCGATGCACACTTGTCTTTTACCACANGGGTGGGGCGTGGGANGGAGGTTTGT
TTGGATAGCCACGTAAACGCCCTTTCCCTGTGGCCTGCGATGTTCCACACCGTTTATGTGT
GAACTGGCTGCACCCGCGCCTCCCGGACGGGGCTGCCAGGGAGGAGGGCCCCGGGAGACCC
CATCCAGACCCCGGCCCGCACGCTGCAGAGGTCTGCTCTCAGACATGTGGTGGGCTCCGT
GTCACGGGTAAAGGGTCTAGACGGCAACAGAGTGTCTCTCTTCCCGCTCCCT
GGTGTGCCACCTCCCTGTACAGTGTCTGTTCAAGCTGCTGCAGGGGACGGGGCATT
TTCCTCCAGACTCTATTTTCTGCAAGGAAGAGCTGCTGTCTTTTCTTACTGAAGCCC
CTGATTCTGTGTCTGATGTTGCTGACCGCCGTGCTTGTCTTCTTGGCCGTGTGCAACTTC
CAATCCCAAGCACACGTGCTCACTTCCAAG

Sequence 217

GCGTCCGGGGAATGGCTGTNAGTNAAGTTAGAGGTAAAAAATTTTCATGTTAAGATTTTG
GAACTGGATTTTATTTAAATAATGATGCGAAGCCATTGAAAGGTTTTTGGTGTGACAGG
ATAAATTTAAATATGAACACACCAACGCATACTTCTTTTAAAGAAAGAACCTGATTAAAT
TTGGGAATTTTAAATAAAAAACAGGAAGCATATCGTACTCTAATAATAATTCAAGGGT
TTTTATTTTCTAGAAAGATCAAGGTCATGTTAATAAAGGGAATATAGTTTTCTTATCTGT
GTTAAGACACTGATGACTTGCAAAGAAAAGTAACACTTTTGTGATATCCTTAGGTAATTC
AAGAGGAAACGCTTGAGCAATTACTGATGTTGTAACTGGGATCAGAAGACATA

Sequence 218

NCCCCGCGTCCGCCCAGTTGCAAAGGAGATGTTGTAGGATGTTAGGTCTCAGCACAAGGA
ACCCAAACCTTCAGGGGCTCTCCTCTACATTATGCTCCCATTTTTCTCCCAAATATCGA
TCTCCACCCACCCTAGACATAGAAGTGGAGAATAAGTTCAGTTTCATCCCTTTCAGAT
CTTAGGGGGACCCATCAAATCCCAGCCACTGGGTGAAAAATCAGCAGCTTCTTTATAGGA
CCTGAGTTGCCTTCTAGAGGATCCTAGAGGAAAAAAAAAATCTTATCCTTCAAATACT
GCTGTCTTCCAAAATACGTAAAGGACGCCACGGTGAATCATAGTGGACACCCTGCATTGGT
TGGGTTATTATTTATCCTAGAAGCTTGGGTTCTTGGAGCCCTAGCTTATTTAAGCAACAA
AGTCCCTCACAGCCCACAGGTGAGGAAGTGAGTGAACAAAGAGATCATTGGACCTAAAA
TCAAAACACCTG

Sequence 219

CCCGAAAGGAGGTTTGTGGAAGTGGAGAGATCCAGGAGGTAACACCAAAAAGCTGCATT
TAGCAATGCCTGCCTAGCCCTCCTGTACAGCTCATGTTATTTTGTGCTTAGGCCATCT
TACACCAAACCATTCCTATCTCCATGCTTTTGTATGCTGTTGCCTCCTTTTAGAAGGG
CCACGCTCCACCGCTCTGCTGTGTTGATACTACCGACCCTTCTTTAGTTCCTGTTCAAT
TCCCAAGCCTTCTGCCAAGCCTTCTTGGACATTCCCATCCCATGCTGACTATTCCTTAAG
CTAAAAACCTTAGAGTTAATATGATACACTTGGCTACCTCATTGTTTCATATCAGTCAT
TCCTGTCTCTAGCTATAATCGGCTCAGCCAAGGAAGATATATTTATATGGACAATGTCTT
TGTGCCTTGGCTGTAAACAGTGTTGAATAATTAATCTCACTTGATGAGGTCTTACTTAAT
GATAGCCTCC

Sequence 220

CTCGTCCGGGCTGGATCCGTCTGCNCCACTGCAAGGGCAAGATGCAGCTGGTGGCTGACC
TGCTGCTGCTGTGAGCGAGGCGCGGCCCTGCTCTTCGAGGGCCCCGCTCCTCTGGTG
CCGGCGCCGAGTCTTTCGAGCAGTGCCGGGACACCATCATCGCGCGACCAAGGGGGTTT
TCATCCTTACCCACGACGTGCAGAGCCAGCTCAACATGGGCCGCTTCGGGGAGGCGGGG

TABLE 1

40/467

ACAGCCTGGTGGAGCTGGGCGACCTGGTGGTGTGCTGACCGAGTGCTCGGCCACGCGG
CCTATCTGGCCGCTGTGGCCACGCCGGGCGCCCAGCCCGCGCAAGN

Sequence 221

GATTTTGGCTNCTGCAACCTCCGCCTTAGGGGTTCAATGCAATTCTCCTGCCTCAGCCTC
CAGATTGGGATTACAGGCATGTGCCACCGTGTCTGGCTAATTTTCTTGTAATTTTAGTAC
AAAAGGGGTTTCACCACATGGGCCAGACTGGTCTCAAACCTCCTGGCCTAAAGCGGATCCA
CCTGCCTCGACCTCACAAGGTGCTGCGATTACAGGGATTACAGGCTGGGATTACAGGCAT
AAGTCACCACACCCAGCCTAAAAATTTAAAGTTTATACTGTATTGTTACATTGTGATGC
AACTTTCCATATGTATTTCCAGAATCAACTATGTATCAAGGAATATTGAAAGCATAAAT
GAGATCATGGTGAATTCTCTCCCATGTGATTCTTGNGGTAAGGGAATGAATGGTGG

Sequence 222

CNCGCTCCGAGTTATTNATATAAAGAACATTTTTCTGTTTTAGAGAGAACCCATTTATT
TGTGAAAGAAACAGAGTTTTGTTCTTATCCCTATAAACACTGCATTTGCTGTTTCTTCTC
TAGCTGATGTGACATATTAGGGAAGCAGCACCCGACTGGGACTCAAAGACCTGGGTTTG
GAAACTTTTTGATTACTAGCTTAGCTGTGTGAAATCAGGCAGATGGTATAACTTCTCTCA
TTGATGATGTCAATCTTTTTAAAAATTTCTAGCAGTGAAATTTTAAAAAATGAAATGTT
AGGTGAAACCTCAAACCTACAACAGTGGTAAAAATTGGAAGGGTTCTGGATGGAGTGAGGG
CAGGGAGGGGGTAACTGGGCTGAGGGGGCCCTCTCAGCCTCTTCTCCCTTCAACCGA
AGTCTGAAATCTCTGGCTAATATGGGTGGATCCCTAAGATTTCTTTGTACTTTTAAAC
TACCGAAAAGNTATTCTAAAGAATTTTGGTATGGTTTT

Sequence 223

CGCNTCCGCCGAGCGCAGCAGTCTCCCCCTAACCTCAAAGCCTCCTCAGAAGTAACCTG
GTATCAGTGGGCTGTGCAGATTCTTATAGTCTTCTTGCCTTTATATATGAAAATAACTT
TGTTTTATGTTTGTTTTACATAGGTGGAATTATACTGACTCTTACTCTGTGACTTGCTT
TCTTCACATGACAGTAACTCCTGGACTGTTTCTGTAGCAGCCACACAAGTCTCCTTTATA
TTGCCAATATCTATCTTTATCCCAAAGACAAGATGAATGTTCAAAAACGGTAATCCAAAC
TCACTTCTAAAAATGGGTGTGTGTTTAAAGAAGAGCTGCTCAGCTGAGGCAGTTTTGCTG
CCGAGGGGATTTGAGCAATGTCTGGGGACGTGTGGTTGTCACAACTTGTGAGGGGGCTC

Sequence 224

GCNTCCGTCAATTTGCATCAGTTGCCTTAAAGAATGGGGTAGTTATAGGAAGCTCACAGA
GAGGAAAAAACTCTTCATGTCTACATTGCTTCTTGAAGTATTTTATTAAGAAG
AATTGTTGAGCTAGTGATAGAAGTTTCATGAATCCCTGGTACTAATTATCAGTTAAATG
ACCTCTCTGAAGTCTCTGGAGAGCGTTCTGTGTCTACTAATATTGGTGAAAATTTGAAACA
AAAATGCTCTCCCATGTCCACATATTGCTTCTTTGAATTTGGTTTTTCGAGCCAAGAAC
TTAGGGTGTGAGAATATGTTTGTGGGGAAACCCACACAAATTTTATGTTAGTCTCTGTAC
ATTTAAATTTTACCTTCCTGATTACTTACGTAAGACTAAACAATTTAAGTTTCTAAAT
GCCATCACTTTTGCAAATAAAGGACTTTATTAAGNTGATAAATAACAATNATGGGCCAT
CAGCTCCACCTATAATTAATATCCTTGCCTGGCACCCCTGGAAGGGACTTAGCTTNTT

Sequence 225

CNTCCGCAATTAAGTGCCTTAGGCTAGATTCCCATGAATANGAATTGCTGAGTCAAAGGT
TGACACATTNTTTAAAGGTTAGATACATATTAGTCAAAGTTTTTAAGCAANATGCTTCT
AAGCCTNTTGTATCTTTATAANNACATTGNTCCTTTCTAAAAATATATAACTGTCTTCTGC
GTNCCAAGGATAATNTTTTTATTAATATGGGGCTTCTTGTGTCTACTTCTCCCTTTTC
GTTATTTCTTCAAATGTTTAAACAACTAATACATTTCAGAACACATTATGCTTNCATCT
TGTCATATTTGCAGTACCTTGTATCTCCTGGACTTTATGCAATGCGTGTGTGTGCACAG
ATGGAATATGTTNACCATTGGCT

Sequence 226

GCAGTGCCGGCGGCGCAGTTGGGAATGGGAGTGCGCTTGACACAAGCGCCGACGAGCGATA
GCGACGCTATGCCCTCTCTTGCCAGGCGCCGGGTGGCGCGGATCAACCTGCTCTCGCAG
CAGCCCCTGTGGTGGCCGCCGTGATGATGCAGGAATCGTATTTGACGGTGGNCAGCTT
CGCTTCGATCAACATCTTCGNCGAAGTTCGCGTGAACCGTNCGGNATCGACATCGTGG

TABLE 1

41/467

CGCTGGCATCTGCCGCTATACCAATCATCGAAACCGCGCTGGAAGGTCGGGTCCAGCGCC
CTGCAGAAGAGACGCCTCCAGCAGGACAAGGTGGCCTGCTCGACGAGCAGGCTACCCGAG
TGTCGTTGAACAAGTATCGCCTTGGGTCT

Sequence 227

CTGACACCCAGTATTGCCAACCTAAGGACTAGGAAGAAAGGGCTTACATGTTTCTTGCTT
TAATAATATGTGAATTAGAAAAGGTATTCAAGAAGATACAGGGTTAGAATGTGCATCTTT
CTTTTATGTACTGAAATGTTTCAACTCATATGCAGCAATGTGGTNACCTTGAAAGATGAT
TCCAGAGATTTTCATGCTTCTGGCAGTTTCAGGTCACATTGGGGTGAAATTTGACATACTG
TAGTCATCCCCAAGGTAATAATGTTGATGAAATGGTATAAACCCCTGATACATTCTTAAGC
AAAATGAATCTAAAAGTTTGTTTCAAAATTTTAAACGTTTTATGTTGCTCTGACTTTCCA
TATACTGATTTTTACATTACTTAGTGAAAAAAAATTACCTTTTAGCTTNTGGCAACA
AAACATTTTTGGCTATT

Sequence 228

CCNCGCGTCCGCAAGACAGGAGATTTCTTAAGGTCATATATGCACGATTTGCTTAAACGT
CATATAGCATAACTGGAAGAATATAGAATCTACCCAAAGCCTATGCTCTTTCTACTGNAT
TATTTGCTTATAATAGAGAATGCTAATCAGAATCACCTGAATAGTCTTGAGAGGGTCAG
TACACAAGCCTAGGTCCTATCCTTCAGAGAGGTGAAATGGAGGCAAATATATTCTGAAAG
AGTTTCCCAGTTGATTCTGATGAGCACTCACAATTAAGAAGTGCTGCATTAAGAGCTGTA
CATGGTGGCTTATGCCTGTAATCCCAGCTATTCTGAGGCTGAGGCTGGAAGATCACTTG
AGCCTGGAAGATCACTTGAGCCTGGGAGTTGGAGACCAGCCTCGGCAACGTAGTGAGACC
ATGCTTTTTTTT

Sequence 229

TTGGGAGATATGGCANGGTGAGAATGTTTGGGAAAGGAAGTAGAGACAGACATTGGATT
TTGTCAGTCAANTTTCTTTTGATTTTAAATTATTTATTACATTGTCTACATGGCAG
TTAATATTCTAAACTATAAACAAAATTTAATATAGAAAAATATTATGCTTTTCTTTTT
TGCTTTGTCATGCTCTTATTTCAAAATAGATTTAAATTCATGGCATATTATACTAGAAA
ACAAGTCTGTCAATGATCTAAGCTTCTATCTTTAGATACTAGGAAAAAGAGAAAAACCC
AAAGCAAGCAGAAGCAAGGAAATAAGAACAGAAATAAATGGAATTGANAAGAACACTTCA
GAAAATCAGTCAAACTGAAGCTGATTTTTATAAAGATTA

Sequence 230

CCACGCNTCCGAGGAAACTGGCAGGGAAACAAAGTATCCCTGGAAGGAATTTCTTAAAGA
GGAAGAGGCAGATCCCTACAAGTTTAAATCAAAGAATTTGAAGATGTTGATCCCAAAGT
GAAATTGAAAGATGGACTTGTGAGGAAGGAGAAAGAGAAGCATAAAGATAAGAAGAAAGA
TAGAGAGAAAGGCAAGAAAGATAAAGATAAGAGAGAGAAAGAAAAAGTGANAGATAAAGG
CAGAGAAGATAAGATGAAAGCCCCAGCACCCCCACTGGTGTTGCCCCCAAAGAGTTGGC
CCTGCCCTTGTTGAGCCCTGCCACAGCCTCCAGGGTCCAGCCATGCTGCCATCTTTGTT
GCCAGTGCTTCCGGAAAACTGTTTGAGGAGAAAGAGAAGCCGAAGGAGAAAG

Sequence 231

NCTAGACTCCCCTCTCGTATCATGGATCCCAACATCNAGGNATATGGNCATTTACGTGTT
GGGATCTGCTCTGCCATTGNACACAGCTATATTCNATTGCCCCGGGNGTTGTGTATNTTT
CCAAAAACGTTGAAAGGGAGGTTCAGAAAGTATNCAGTTATTNGTATTATTAGTCGTTTTG
AAACTGAGTNGAAAGACTCATTNANGAAAGNTCCATATGCCTTCTTGCTGTCTATGGCT
GGNNTGCTCNNGAGAAAAGTCCNCANTTATACAATTGTA

Sequence 232

TTTCCTTTTTTTGGGGGCGGGGTGCGCTCTGTGCGCCAGGCTGGGGTGCAAGGTGGCGCG
ATCATGGCTCATTGCATCCTCAAATGCCTGGGCTCAAGCAAACATCAGTTTTCTTATCTG
TGAAATGAGGATAAAAATGTCTCCACTTAAGGGTTGTTGCAAGGAAGGTGTTGCCTTAGT
CATAAAAGCTAGGGAAGGTGTTCTTAACGAAAAACAATTGTCAGAGACATGAAGGTAGA
GGAAGAATTCACACATGAAGGGGGCTGGGGAAAAATGATTTAAGAAAAGAAACAGGCCTGG
CGCAGTTGCTCAGGCTTGATCCCAGCACTTTGGGAGGCTGAGGAGGGTGGGATCACCT
GAGGTGCGGGAGTTCTAGACCAGCCTGGCCAACCGTGGTGAAACCTTGCTTCTACTAAA

TABLE 1

42/467

AATACAAAAANATTGGCGGGGTGTGGTGGCAGGTGCCTGTATTCCCAGCTACTTTGGAGG
CTGGGACGGGATAATTNCTTGAGCCCCGAGGCGGGGGTTTCCGGTGAGCCCCGGGATTGC
GCCCCTTGCACTACAAGCCTGGGGCACANAAGCGAGGACTNTGTCAAAAAAAAA

Sequence 233

CCACGCNTCCGGTCTCAAATCNCCTCAAGTATATTCAAATTTGACCACTTCTCACCAGC
ACCACTGTCATTATCCTGATTCAAGCCTCCATCATCTCTCATCGTTACTGTGACCTCCTG
ATCATTCTCCTTGCTTCAGCCCTGGCCCTGCAGGCAGCATTAGTATTAAGCAGTAGAG
TTGTTTCTATAAAAAATGTAGTCAGCTGGGTGTGGTGTCTCACGCTGTAATCCCAGCACTT
TGGGAGGCCAAGGTGGGAGGATCACTTGAGCTCAGTTTGAAGACCAGCCTGGTCAACATG
GTGAAACCCTGTCTCTACTAAAAATACAAAATTAAGTGGGCATGGTGGCGGGCACCTGT
AATCCCAGTTACTGGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGCAAAGGCT
TGCAGTGAACCCAGATCACACTACTGNTTTTNCACCTGGGCACAGAGTGAGACTGCCTC
AAAAAAAAAAAAAAAAAAAA

Sequence 234

TCGAGGTCAAGGACGGTTATGGCCCGTAACCTGCTGCCGCAGAATTACGCCATCAAG
TGGACGCGCGGTGCTGAGGCCAGATCAAGGACATCACTCGCGCCCGTAAGGCTAAGGAG
ATCAAGTCCAAGGAGGAGGCTGAGCAGATCCGCTCGCAGCTGGAGCACCTGGTGTCCAG
GTGACTGTCCAGGTGCGCGAGAACGGTGTCTGTTCCGGGGCCGTGACTCCTGGCGATATT
GCGCTGGCAGTCAGGAAGGCCGGTGGCCCCGCCCTCGAGAAGCGGTCCATCGAGATCACC
AAGCCGATCAAGACCATCGGCAAGCACACTGTCCGGCGTCAAGCTGCATGACGCTATTAA
GGGTACAGTCACGGTCGAGACTGTTCCCGCCGCGTTGATTTGACGTACACGCAGANTAGG
GGGAGGGGCATCCAACCTGGGTGCCCTTCCCTTTGCTTNCGTCAACCCGGCGAAAGGTAA
ATGACCGAAAGTAATTCTTATTACNGTGCTTAGGGGGGTTTCGCCGCGCCGGGCCGTTAG
ACTTAGTCTAGAAGAAAAACCTTCCACACCTTCCCTTGAACCTGGAAACATTAATAATG
AATGCNATTGGTGGGGTGGTAAACTTG

Sequence 235

GNGGTAGCTTTGTGTATGTCGGGCACTTCNAGGAATAGGGTGCAGGAGAAACGTCTCAGT
GTCTCCCTTCCGAATCTTGGCTTCTGGAGGGAGAGATGCTGGGGTGGGAGTGCTCCTTG
GTGGAGTACTCAGGAGCTTAGTAAAAGCAGAGGGGGCTGGAGAGGCAGGCCTGGCCTGCA
GAGCCAGCATGGAGAAGCCTGGTGTAGGGCTCTCCAGCCTGCCAATTTACAGTTAAGAA
AAAGGAGATATGTATATATATATACACACACATACATACATACACACACACATA
TATACACATATATATACACACATGTATACATATATATACACACACATACACATATACA
CACACATGTACACATATACACATATACGTGGGGTGTGTATATGTATATATGTGTAT
ACGTATATA

Sequence 236

AACTGTCTAATCTCTTGACCTCGTGATCCCCTGCCTCGGCCTCCCAAAGTGCTGGGATTG
CAGGCATGAGCCACTGTGCCAGCCATACTTTTTTTTTTTTCTGGNGCATTCTGAAG
TTAAATATGTTGAGTTCTCTGCCATTTGTTCAAATCTATTGNATTATTTCTGNNGGAT
TGACAAATGTTATGAACAATTTGGTTTCAAATAGATTTTTCTATTTAGCAACTTTCTAT
TCCTCTAGGACCTAGTATTAAGGTCATTAAGATGGCTTAATGAGTCATTAAGCCATTAAT
GAGTCATTAAGATGGCTGACCAATCTGTGCCATCTTTTATGACATTTTGTATCAG
TGTCTCTTTTGTGTATTTCTTTGATTTATATCTTGACAGTATTACATAAGCAGGAATAAA
AGAGACTTTGAGTGGGAATGTCTCGCTCAAATATAAATAACCTTATAAATAAATCTTTA
CTTCTCAGAGTCCTAAATCTTCTTGGTTAGTCTGGTCTTCTGGGTTGATTCAAGGTTCT
TCGGNGACTAAATGGCAT

Sequence 237

TGTTNACCTTTGGGATTACACAATACTTGCAATCCAGCTCTGCCATGGGGGACATCATT
ACAAAGCACTCCTCACCAGTAGTCAGATGGCACTTGATAGCTACAGGCATGTGAATATT
CTTTTACTGTCAACTTTTGTGTGATTTACCTAAAATATGATAAGCTCCTTGAGGATAA
AGGCTAAGTCTTACTTCTTCTGATTTCTGGTAACCGCTTGACCAAACACCTGCCAAGCA
TTGTTGATTGCACCTATGAGGAGGTGAGAAAGTGCCAGGCCGTGATGCCCTCTATACAA

TABLE 1
43/467

ACATGTAACAGTAGACTCTGGTTCATCAAGGAGTAAATGACATGATATGTGATAGACCAC
ATACATTTCGTGGCTATAGATTAGGGTGAGTAACTGTAACCATATCCAATTGTGAGCAAAAA
GTGTTTAATTGGGGNGGTTTTAACTAATATAAAATTGGCTAAATCATCATTTTTCAAGC
TCTCGAATCATCTGAAGACCTTTTTTTATTTTTTAANANTTAGGCC

Sequence 238

CGCTCCGTTGCAGTGAGCTGAGATCACGCCACTGCACTCCATCCTTGGTGACAGAGCANG
ACTCCATCTCAAAAAAAAAAAGAAATTGGGTTGTCTAGGCACAGTGGCTCGTGCCTGTAA
TCCCAGCATTTTGGGAGGCTNCNTAGAANAATCACTTGAGCCCAGGAGTTTGAGACCAGC
CTGNACACATAGTGAGACCCCATCTGTACCAAAAAAAAAAACACCAGACCTGGTGCCAC
ATGTTTGTAGTCCCAGCTACTCAAGGGCTGAGGTGGGAGGGATCACTTGNNCCCAAGAAG
TCAAGGCTTCAGTGAGCCATGATTGGTGCCACTTGACTACAAGCTGGCAACAGANCCAAG
ACCTNTTTAAAAAAAAAAAAAAAAAATNGGNTTGGGTTATAGGNGAAGTTNCCTGG
AAAACCTTACAAACAAGAACCATGTTTGGGGGAANCAANTGGANGGGGTNAAANTGNCC
NCTTGANGCTTNTCCTTTNGNGGNCCNTAATTAANGTTTCCCNGGTNTTGGCCNNGG
GNCCGGAATNCCTTNGAATTTCTTAGCCCTTTTGGGNGGGCAAAAGCCAGGGNGG
AATCCCNCCNNGGNTCAGNGATTTTNGNAACCNNACCTTGGCCAAAAATNGGGGAAAACC
CCNGTTTTTTTNTAAAAATAACNAAAAANTTTNCCCCCTTNTCTTNGGGGGGGCCCA
CANNNNCCCCCTTTTTTNATANANAANAANAANCCCCCCCCCCCCCCCCCCCC

Sequence 239

CATCTCAAAAAAAAAACTCACACATATTTTATGTACACCTAGTATCAGTGAGATTTTTTA
ATAATTAGATTTATTATCTTCCATATTGNNTACAAAACCTTTCTTCACTTCATAAAAAGT
CAAGTAACATACTGTACTTACTTCTCTCACCTCATTTTAAAAATAGTGGATAAATTGTCAG
ACACAGTGACTCTGCACCTGTAATCCTAGCTACTTGGGAGGCTAAGGTGGGAGGATTGCA
TGAGGCCAAGAGTTCAAGACCAGCCTGAGCAACACATAGAGACCCTATCTCTTAAAAAA
AAAAAAAAAAAAAAAA

Sequence 240

TGTCGACCCACGCGTCCGCGCTCCTGTCATCTCCCTTGGGTCTTCATTTAAATGCCACAC
CAGAGAGGCCCTCCCTGGCCACCCTAATGAAAACCTTCAACATCCTCAACCCTAACATTTT
CTGTCCCTGGGTTATTCTCCCTTGGTATTTATCACCATTTAATGTACTATCTGGCCG
GGCATGGTGGCTCGTGCCTGTAATCCAGCACTTTGGGAGGCCAGGCGGGCGGATCACC
TGAGGTTAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAA
TACAAAAATTAGCCAGGCATAGAGGCATGCCGCTGTAATCCAGCTACTTGGGAGGCTG
AGGCAGGAGAATCTCTTGAACCGGGAGGCAGAGGTTGCAGTGAGCCAAGATCAAGCCAC
TGCACTCCAGCCTGGGTGACAGAGCAAGACTCTGTCTCAAAAAACAAAAACAAACA
AACAAACAAACAAACAAAAAAACCAACAAACCCACCAAAACATACCATATTTGGTTTCTG
TAAAAAATAAAAAAGAGAGAGAGAATTTTTAAAAAACAAAAACCATACTATCTAATTTA
CATTTTTAATCT

Sequence 241

CCCCGCGTCCGCTAAGGCATGTGAGCGCCTTGTAGGGCACGTTCTGTCTTCTGACTACAT
AAGCAACACTTTTGGCACCCTAAGTCACAGCACCCACAGCTTTTGGCAGGATACTTTAAA
ACAGAAAAACACATCATTGATCCTGGCAGGATTTTTAAGGGATTGTGCTTAAGAATGT
TTAAGTTTGGTAATCAGAGACCACCACTGGTGTCTTCTCCAAAATCACATCTTTAAGTT
AATTAATACTTGAAGTTAATAAATAATACTGCTCAAGTGTATTAGTAATGATGCCATAAT
ACCATGTGAATTTATGCTGATTCAAATGTTGTTTTTTTCTTTTGATACTCATATGGCCTT
CTGTTTTGAGGACTTCAGATTATTTAGCAACTGATTTAATCTGGTCAAGAAATAAACTTT
GCTTCAGCTGGAAAGCGTGAGGCTTGAGAAAAGCAAGGTTTTTGGACAGGGGACCTATGAA
GCTCATGTTGAACTTAAGTGTTTTAAGGCTGTATGGGAAGTTGGAATGGGAGTGAAAAG
AACCAAGCCGTCTACTGNCAAGGTTTTTCCCTCCTCCCTCTAAAAATTTATAACCTCATT
CTTAGAAGTGGCAAAAAGTTGGGAACCTTTTCCACTGNTTCACTTCTNTTANTNAGGGGA
TTAAGGNGGATNGGNAANGGAAGTTTTTNTGGTTTTTAAAAAANNGNANAANGGG
GGGG

TABLE 1
44/467

Sequence 242

GNCACGGCGGGGCAACCTGGTTCCCTGGGCGGTAGTCCCGGCAGCTGTGCTTCCCCCTT
CACTGCAGTGCCTGTTTCAGTTGGAAACACGGAGATTTACCTTTACTCCCTGGCTATAGG
GGGATGGTGAGAANGGGGCTGCGTGTNAGNGNANATTCAAGGCATAAATCTTAGNTTGTC
TTTTAAAGAATTGNGTGCCGGGACGTGNTTGGAGGNTGGGTGCANANAGGAAGAGGCCGAN
CTNCTGGAGGANGCAAAGGACAGGTCAANTNTGCGNANTTCNGNNNGATGCTGCTGANTGA
ACCCCNNGTGTGTNGCCCCAACAAAGAAAGGCTNNGCTNNGATCAAACATTTACTGNACC
TANAAGGCCACATTCTNGCTTAANNANNNCCAGGAANGCNCNTTCTTGTTNCCCATTACCA
AAATCATTNACACTTGGTTTTTGGCCCNACATACCTTTCTTTTNGACCANNGTTCTGGN
NNAANGGCANTANACCNNGNATNTNNCNTCATNACANGAATAAAAAGCCCNCAAGACN
CNACANANGNGCCCATCACTANNNNTANAGATNTCAAAAGGGGGCCCNCGGATCCTTNACC
ANAGAANACTCTGGTCCNNAGNGNAAGAAAGNAAAACCCCNANANGCACTGGGACNNT
NTNATANTTCTNNTTNAACAAAANCTTATAANNNAAAAAAAAAAATTTTT

Sequence 243

AATTAATAAGCCTCCTGGGTGATTGGCTGCAGGTGGTCCTGAGACCACACTTTAAGAAA
CACTAATCAAGAATCAAGGCCTTATGACTCTTAGTCCTGTTTCTCCCAAAGGACTATGT
TGCCCTCCCTACATTGAAAACATTCCAAACAATACATAAGAGTCTTTGTAATTCACATTA
GTGCTCGTATTTACTGACTCAACAATTAATTCCTGATTGAGTCATTCATTGAGTAATTTT
CTTTTACTCACTCAGCCTCTGTGGTTTGCCAGGAGCTACAAATAAAAGATTAACACACAG
TCACACCTCCAAGGAACTCATATAATAGTAACAGAAGTAAGTACCATTTCTTGAGCACTT
TATTTATACATACCGTCATACAGTTTATCTCATTACCTATCTCATTCCCTGCCTTTTCA
TAAGCCTGTATACTATTATAACCGCATAGTTTGGGAATATTTTATATATATATATATA
TAT
TTACATTTAATATGTCTTAAAGTATTTCTTTGTGAGTCTTGCTTTATATATGTCTAGT
ATTTCTTTATAAGGGCTACAAGAAGTATCCCTCAAGCATTGGATATTTCAATCAAATTAC
CCTTGGGGGGGTNGGGGGGAAAAAATNNGGGGGGGGNTT

Sequence 244

TCGCCCOCGTCCGGGGAAGGCTAAGGCGCGAGGATCCCTTGAGCCCAGGAGTTCTAGGC
TGCAGTGAGCTATGATCACGCCACTGCACACCAGTATGGGCAACAGAGCGAGATCCCATC
TCTAAACAAATTTAAACAAACGAACAAATGAAAAATATTGCTGTCTTAAGGTTGGGAAG
GGGCAGAGACCCCTTTGCTTGCTCATCACCAAGACACTTCTGTGAGGCCCCAGGGCTCTT
TGGAGAACGTTTTGAAATCACGGTTCTAAGTAATTATAGTTACTGTGACTGAACTAATT
TAGCCCTAAGCTTCTACAATCAAGATAGAGATACACTATGGACTGCATTTCTCCGCTTC
AGATTAACAAAAAAGTTTAAAGTCAGAATGTAGTTATATTTTCAAGGTAATGCTCAAT
ACATTTTCAAGATGAAGCTGCTCAAAATTAAGCAGTGAGTCCAAGGGTTAATCTGNAAA
AAAAAGTACAATTTACTATCTCCTGGTTNCACTTATAGACCTCATAGGTGCATTGGC
TAATACAAGGGGCCACTAAACACATTGTGGCATTACNNGGATTTTATTGGTGAAGNGCTC
TATAAGTTTTATTGGTGCCAGGTAAAAGAAANGCCTCNTATAAAAAAATGGTGGNGGGGG
GTTTTTTTTTNNCCCCCTTTT

Sequence 245

TTCCGTACCTAAGAATTGTACCCTTTCATAACAGCACCACTTGGATATGTAGAAAGAGTT
TGTTGTGAGATCAGATGTAAACAAATAAAAGTTATTCGTGAAATGATATGGAAGACTGG
GATTAGAACTGTGGCATTCAAGAAAGCCAGTTAAGCTGTTCTCAGAATTGACAGAGATT
TAGAGATGGTGTAGTGCAGATGGTGTAGTGCAGGGATTCTCAGCCTCACTGCACATGGTA
ATCTCATAGGAAAATTTTAAACAGGACAGATGCAGAAATCTTATTAAGTGTGAGGACT
GAAGTCCAGAGGTCACTATATTTTAAAGGCTCTGCAAGTGATTGTAAACATGCATCTATG
GAGGAAAACATCANCGTAGGAGAAAAAGGGAAAGAAACCACTGGAGTAAAGGCTCTGTC
TTGAGCACTGTGCTGGCTCCTGTCTCCTCATCTCTTTTATCTTCATAGTAAGTGAGA
TGGGTTTGACAAATAGGGA

Sequence 246

CGTCCGGNGTAACTTGAACNAAAGTATTCTCCTTCTTCTGTATATTTGTTCTCAACCCC

TABLE 1
45/467

8

CAATTCCTCATAACTTTCTAAGTAAGTAGGGTGAAAAGAAAGTCAGGGGCTGCCTAGGGGAA
GCTACATTTGCTTCTCAAGGCTTGACCTGCATATTTTCATGCCCGACATGTTGCTGAACA
CAGCCGAGTAAAGTGCCAGAATAAAATCAGCTCTGTCCACGTGGTACCAGGAATGCTGCT
GAAATGAAGGTAAGTATAGGATTCCACAGGATCTAAGACAGTCCAGGGAAGTGGGACCAA
TTGTGGGAAACCTCAAAGCTGAGCATATTTGAAGAAAATGCAGAGTAAAATGGCTATGGG
CTGCCGGGAGGCCTGGATTTGAGATACCAAGCACCCTGATATAAACACTGATGCTCAGA
AAAAGAAATGATGAGTGTGTATTTGTGCCCTTGAGACCTAATTTAATTTATAATTATTC
ACCAGAGATAAGAGGCAAGGGATGTCTACTTGCTGGATATCTGAATTTACACAGTTCTCT
AGTCATTAGTATTTTTTACAAATATACCACTAGGGGGGCAGAGGATCTGGGGTT
TNAATTTCAAGACCTGTCACCTATCTGCATGAATTTTGNAGCTTATAAGAAGTTACAGGT
TAACCTTTTTT

Sequence 247

TGTCGACCCCGCGTCCNTNGTATTTATAAANATAATNCTGNTAGATAAATAAGTGATTCA
TATTTTGTCAAANCTATTTTAAATTTCAATATTTAAATATTNTGAATCACTGGGTGT
CGNTAAGTGGCATCATNNATGAGATTTGATTCCATGTACCATATAATNTTAGATTGGTCC
TNTCTACCCCTTTTAACTCCTTCAAGCATTGCTATTACTGGGGTTGCCTTTGGGAAAA
CTTACTTCTAGATACTACCATATATCTGAAATAGTAGAGGTGGATGTTAATAAAATTCAT
AAAATNATCATGTATTACTTTTTTTGATTTACCACTGGAAGGAAATACAGNCATGTGCAA
TATAATGACCGTTTTTGGTCATNGAGACCCACATGTGTGACAGTGGTCCCATAGGATGNG
GCTGAAAANNCTCCTGTTGCNGCCTAGTGACACTGTAGCCATNGNAACNCCATAGCACGAC
ACGTNACTCACCTNTTCATGGTGATGCTGGTGT

Sequence 248

CCCCGCGTCCGATTTTGAATGTATTGAGACTAAAGTTCCTTTGAAACATTAAAGAAGATC
CATCAAAGTGGCAACTGTATATAAGGTCTGATATCTTCTGGCACTCAGAGGGAGAGTTTC
TGGTGGAGGTGGAAGTGACTTAGGAGTCATCCATGAACATAAATGAGATCACTCGTGTAG
GGAAGAGTTAATGAGATTAGAGAGCCTTGGACAGAGCCTTGCAGCCCAAACCCATGAAAG
AGCAGTAATAGTGAGTGAATTACCTTCTGAGGCAGTGCAAAGTAGATAAGAAAACAAAAN
CTNNAAAAAAAAAAANAANAAAAAAAAA

Sequence 249

CCGCGTCCGAGTGGTNGTGATCTCGTCTCCTGCAACCTCTGCCTCCAGGTTCAAGCAA
TTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGATTATGTCTTGTTANNGAAA
TCATTCAATTTTTCACCAGAGAATAAGGAAAAGCAAATTAGACTGTGAATAAAATCTCCA
TGTACCCACTAGGATGACTACAATTCAAAGGCTGACCTATCCAGGTGAAGATGAGAGTG
TGCAGCATTGGAATTTCTTACACATTGCTGGAGATTTAGAAGCTAAAGAAAGAGGACAAA
TGATTTGGAAGCAAAGATAAGAAGGAAGAAGGAGATGGGGTCTTGCCATGTTTCCAGGC
TGGTCTCAAACCTCCTAGATTCAAGTGATCCACCTGCGTTGGCCTCCCAAAGTGCTGGCAT
TATAGGCATGAGGCACCATGCCAGGCCTGTTTTGAAATTTACATACATATTTATAAACAT
ATTTTCAGGATGAGAGAATATACCAAGAAGTTACATAGCATTGTGTATCTGTATAGAATA
AAA

Sequence 250

TCGACCACGCGTCCGGGTGAACGTGGTCACCAAGGCCATGGGTACCCTGGGGGTGAGCTT
ATCCTCCTGCAGCGTCCCTGGTTCCAAACCCACCTTCGAGCTCTCAGCCGACGAGGTGGA
GCTGGGCCTGGGGATCCACGGGGAAGCTGGTGTGCGCCGGATAAAGATGGCAACCGCCGA
TGAGATTGTGAAACTCATGCTCGACCACATGACAAACACCACCAACGCGTCCCATGTGCC
TGTGCAGCCCGGCTCCTCAGTTGTGATGATGGTCAACAACCTGGGTGGCCTGTCAATTCCT
GGAAGTGGGCATCATAGCCGACGCTACCGTCCGNTCCCTGGAGGGCCGCGGGGTGAAGAT
TGCCCGTGCCCTGGTGGGCACCTTCATGTCAGCACTGGAGATGCCTGGCATTCTCTCAC
CCTCCTGCTGGTGGATGAGCCTCTCCTGAAACTGATAGATGCTTGAAACCACTGCAGCAG
CCTGGCCTAACGTGGCTTGAGTCTTCACTACTGGGCGGAAAGCGGAGCCGGGTAAAGCC
CTTGCCGAGCCCCAAGAAG

Sequence 251

TABLE 1
46/467

GTCGCCCCGCGTCCGCAAGAAATGATGTTAGTAAAGATACTTTAATTGCGGGGAGTTCTC
TGTTGGCTGGTGAATAAGGACGTTCTCTTTGAGTTCCACCTTTCTTTGAGAAATTTTCAT
GTTTCCTGTACTTTTCCTCTATTATATCATGGAACTTACTAAATCAGCCTGTGCATTCC
GCCACATATCCCTCATGGTGCCTTCCGGTCTAGCAGCTGAGCCAGGGCCATCAATAA
ATCTTCTTCTTTCCCCAAGATATTCCTAGTTGCTTCTTTACTATTCACTTCTTGTAAAT
CCATTCATCTGTGTGTATCATTTAGGATGCTGGGCAGTTGCATCGCATTTCACCTAAGGT
CACATCCTGATGGGATTTGGTGGGATCCTAGAGCTGGCTAGGACCACTTGTGAGAGCTGA
TTGTTAAATTCCTCGAAATGACGTGACTCAAGTTGTTAGACTGCTTAAAGG

Sequence 252

CCGGTGAAACCTGGAGCTGAAGTGAATTCTCTTAGAGTATATTTTGAAACTGTACTAGGA
CTTTAAACACTTTTGAATTTAAAAACAGCCATAAAATTCCTGTTATACTGAAGGAGTTC
CTGAGGCAGTGTGCCTCTCATTTTACCACCTAAAGTTGCCATAGAGGTCCAAGGAGACAC
TGCTGATAGCAGAAAGTCTTCCAGAAAGAAATTAGGCGACCCACACCAAGCATGTATGGC
TTTGAGTCTTACAGATGGCTTTTTAATAGTTTAGTCTCTTAACCTAAGGAAGTTTCTGAA
GTTCCGGTCAGAGAGTCTAAAAATTCACATTTTACCTAATAAATGATAATGAGGCTATTT
ATCTTGTCTGTCTGGATTTTTTCACTTGACATTTAATGAAATATCCCATATTACCTATAA
TTTTATTTGAAG

Sequence 253

CCCCCGCGTCCGAGATAATGCTGTTTGCTTCCGGCCGCTGTAAATCATAGGTGAAAACC
AGTAGCANGTGCTCACTCAGTGCCTCCAGAAAGCGGTCTGCGGGTCTCAGCTGGGCTGGG
GGCAGTTTTTCATTGGGCAAGGCTTGGGCTTAGCTTGAAGCANGGGCTGGGAGAGGATGG
ATGGGGGTGTGAGAGCAAAAGAAAGACCTGGCTTTCAGTGATGGCANCCACGTTCAAA
TNNNAGCTCACCCTGACCNGTCGNNTGACNGCGCCAGGNGTTAGGAGACTGNAACTGN
TTNTGNGTNNNGNNTCCGGNCGTNCATNNNNNCTGCTCAGCATACANANCCTNTTNCNTA
TCNTAATCCTCATACNCATGNCTGNNNACTNTACACTGTTCTACTTATCAATGACAGGTC
AAAAGTGTTATCATNTGTGACNTAGAATGAGTGAAGTACACNCCCTCTTGAAAACATGA
ATGACTTAAAGAATCACCNNTTGCAAAAAATC

Sequence 254

GCCTTCGCCCCCTGCCTCCTCTTGGCTGCGGCTGGTCATCTTCCACCTCCACAGTGGGCC
GAGCTGCCAAACAAGGGGTACACATGTGCCCCCTGACATAGGCCAGGTGGTCTCTGCCCT
CTGTAGCTCCCATGAGAGAGGGCTCCTCGGACCGAAACAGGAGGCCACTGCCCTTGCGCA
CACACCGTGGCCGGGTCTCCTGGGCGGAGCGCTTCCGTGTGTGGGAAAGTCAAGGGCA
GCCCCGAGCCTCGAAGCCCAGGCTCCAGCCCCGCGCCATGTTGCATTCCCGCCTCTACT
CCTTGGTAGGCTGGNTGCTTTGAGTGGTTCTTTTTAATCTTTCTGTTGGTTTCTCCTTT
TCCTTTGCCTGGGTTTTGCTTTAACCTCTCTGTTGCAGAGATGCAGAGCACTCAGAGAGC
CTATTTCTATCATCGCTTTTCTATTCTCCACCTAGAACCAGNTGACTGGCCGCCCCGAGTG
GNGTCTCTTGTGTGTGTGGTGCCGTCAAAGCTGTGCAAAGAAATGCTTCTGCCTAGGTTT
CTTCGCGCCCCCCTTGTGCTTTTCTGCCTGCTTACACCCCCGGTTCCTGATCTG
CCCTGGGC

Sequence 255

GCCCACGCGTCCGCAAGANAGCTCCTCAGATTTGTCATAGACTATATTTAAAGAAAGGCC
ACATTTTTCTTATTTAAATGCATTAACAATGCANCCAATTAAGAACTGAGNTGGAT
TTGTACAAAAGCAGGGACTAGGTCTGNTTTGTCACTGCTATATCCCAATGCCTAGAAC
CATGTCTGGCAAACATACTGGCATGGGAAGAACATTTCCATAACCCCTGAATGTTCTGTG
CCCCTTTCCAATTAATCCCTACCCTCAGAAGCAACCACTATTCTCATGCTTATTACATTA
GTTTTGCCTCTTCTTACTTTTATATAAATGAAATCATACATCTAANAAAAANANAAAA
AAAA

Sequence 256

TCGACCCCGCGTCCGATTTGATATAAATAGTTATGTTACTCATATAGAAATCTCTTCCCC
ATTACACACATACAAACATTTATCTATGAGTGGCTTATAATTGCAAATAAGATGTAAATC
ATGCTCATGATCATTGTCAAAATGTGAAAGATTTTTTCTATACCTCTTTTAGGTTTGT

TABLE 1

47/467

TTTGTTTTGTTTTGATTTCCAGGTGGCATTAAAGACAAGAGGGAATAATATTCATTCT
TACTTCTACTCCCAAGTCACTAGTTTGCTGAATTTAATTGAGTTAAAGAATTGTATCAGT
CTTCTTGGAAGTCTAATACAAAACCAGTTCAACACTAGTTATTCATTCTTTGCTAATTCA
CCAGAATTGAAGGATGGATAAAATGAGAAAGAGAAGTAGTTCTTCATATTATTAATAA
AGAGTTAAATTAGACACTTTGTTGGACTCTTTGGTCTTAATAATTCCTACTCTTTTGAG
GTCCAAAAGTTTTGTCTTGATAAATAATTTAATGGG

Sequence 257

AAGTTGGGAAAATAATTCATGTGAAGTACAGCAAGTGTGTTAAGAGTGATAAGTAAAATGC
ACGTGGAGACAAGTGCATCCCCAGATCTCAGGGACCTCCCCCTGCCTGTCACCTGGGGAG
TGAGAGGACAGGATAGTGCATGTTCTTTGCTCTGAATTTTAGTTATATGTGCTGTAAT
GTTGCTCTGAGGAAGCCCCTGGAAAGTCTATCCCAACATATCCACATCTTATATCCACA
AATTAAGCTGTAGTATGTACCCTAAGACGCTGCTAATTGACTGCCACTTCGCAACTCAGG
GGCGGCTGCATTTAGTAATGGGTCAAATGATTCACTTTTTATGATGCTTCCAAAGGTGC
CTTGCTTCTCTTCCCAACTGACAAATGCCAAAGTTGAGAAAAATGATCATAATTTTAGC
ATAAACAGAGCAGTCGGCGACACCGATTTTATAAATAAACTGAGCACCTTCTTTTAAAC
AAACAAATGCGGGTTTATTTCTCAGATGATGTTTCATCCCGTGAATGGTCCAGGGAAGGAC
CTTTCACCTTGACTATATGGCATTATGTCATCACAAGCTCTGAGGCTTCTTCTT

Sequence 258

GAGTCGACCCCGCGTCCGCTCTGGAGGAAGCATAGATTAGAATCATGATTTTTATCTATT
TTAAGAGAATAGAAGAACAGAAGGGGTACAATCTTGCAATATTATGCAACTCTTCTGCT
CTAATATATCAAAAACCTTGATGATCCAAGATCATGCAGAACAGCTGAGAAGAAATCAAAG
TAAACAGTGTACCTTGACGCCAACAGATCCTGCCAATATGAGATTAGAAGCTCTCCATCCT
AGCAAAAAAAAAAAAAAAAAAAAA

Sequence 259

CTGGTACCTGCGAGTCGCTGCAGCAGCTGTGGCAATTGTACCTTCATCCAGGCCCATCC
CGCTTTGAGGGCCTAGAGAGAGTGGGCCAGAGGTTAACCCCGATTTCATCTGCCTCCCCA
CGCTGGGCATCTGGGTGTGCCAGGGCATTCCCCCGCTGGTCAGACAGGTTTTTGGGCCAG
GGCGGGGCTGACCAGGGTTAATTAGAGGGAACTGGCTAGGAGGAGCTGGGGAGGGGGCTG
GGCAGAGTCCAGGCCTNCAGAGCCCCTGGGACACAGCAGGTGTGTGCTGCCATGGGCCGG
GGCTTGAAGCTGCGCAGACTCAGGCGCCAAAAACGGCGCTTGCGACCTCAGGTCCAGAAG
CCCCGGCAGCAAGCTG

Sequence 260

TCGACCCCGCGTCCGAAACTCTGTCTAGTCTAAACTATTATTCTATACTTCTCATCTCTA
TATGTTAAGGATTGATCTCCAAGATAAATGTTTTTTGTTTGNTTTTAGGGACAGGATC
ATGCTCTGTTGCCAGGCTAGAGTGTAGTGGAAACAATCATAACTCACTGCAGCCTCGAAC
TCCTGGGCTTAGGTGATCCACCTGCCTTGGCCTCCTGAGTAGCTGGAATTCAGATGCAA
GGCACCATGCCTGGCTAACTTTTTAAATTTTTCATAGAGATGGGGTCTTACCATCCTGC
CCAGGCTGGCCTCGAGCTCTTCACTCAAGCAGTCCTCCTGCCTCAGCCTCCCAAGGCAC
TGGTATTGCAGGAGTGAGCCACCACGCCAGCCCAAAATAATTNTTTTTAAAGCAAGAT
GTAGAAAAGTGATTATAATATGTTTCCATTTAGGCAAGAAAAAATGGAGAGGACTATA
CCTGTACTCTCTGNACATAGGATCCACAGAAAACCTTCTAATGGATGGTTATCCCTGNNGN
GGGAAACTGGGGGACAGGGAATGATGAAGCAGGAAAATTTTACTGGATAAACTTTAGTT
CTGGTGGCTCTTTTCTTCTATCATGNGNATGGTAAGT

Sequence 261

GTCCCGCAAAGCCTTTAAAAAGAGTCCGAATTTCACTTTTACCTTTTGTAGATGTGCAC
GTGTAGCTGTAGAGCTCATACTTACGTTTTCACATGGCATAGTTGATGGATATGTAGGTGT
AAAGTTTATGGTAGTGGACAGGCTGAGAATGGTGTATCTGTGACAAAAAATCTGATGGAA
GTGATATATTTGATATGAAAGTGAACATTTCTTAGTTGGGTGTTTATAACTTTTTTTG
GTAAATTGTTTTAGTTTTTATCCTTATTTTACTTATGCTTGGCAATAGATGGTCTTTT
TCCCCAAATCTTCTTCTGAATTCAGGAAACACTGTTTTAGCATTTATTTGATTACTTT
GGTTCATTCTTTTCTCCACTCCCATTTATTTGTTTTCCATTTTGTAACTTCTATAAAGCA

TABLE 1
48/467

GATAAAATCTGGAACCTCTAGATCTGACCTTCATGCCTTGCTTTTCTATGGTACTTAT
TCTTTCTGTCTCCTTCTCATTTTGGATTGGGCTTATGAGAGAAATCTTGGGGTTGATCTT
CCAGCTCACTAATTTGATATTCATTTGTGTCTCTTCAGTTACTTAGCTTGCCTGAAAAC
TTTTTTTTCAGCAATTGTGTACTTAATTTTCATA

Sequence 262

CCNCGCGTCCGTGCCCTGGGGCCCCCCTGGGCGAGCATACCCTAGGCGTCAGGCCTGGAG
GTCTCCTCGGTGCCTCCAGCTCTTCTGTGCTCCTCACACTCTGCTCTGNCGCANATTGGC
TGTATTTGTAGGTTACTGCCTTTTATTTCTCACATTTCTTTTTGGTGAGAGTATATCAAT
CAATCAATCATCCTCAGACCTCTATGATAACACTGTGCCCCACACACAAGAAGCTACTCA
ATTAATGTTTGTGTTGTTGAAATGAGAGAAAATATTTGTCTTAGTACAGAAAGAAGATGA
AGCCAACCTCTGATAGAAGCCACCCATAGACTAGGGTGTTGAGCTGCCTTCCAA

Sequence 263

NCCCCGCGTCCGGTAGTTGCAGAAGCATGTTCTTGAACCTATCAGTCCTGACCTCAGATT
TCATCTTCTTCTGGTAGATGTAGCATACATCTCTGAGTGTTATTAGAGGACCAGNCTAGA
GCCTCATCGTACTCCTTCAGTTACTTCATAATCATCCAGCTCTTTATTTAAATGTTTTT
CTGTTTAAATGGCAGCAATGTTTTTATTTTTGAAATGGTCCCTGACAGCAACAGATC
TTCTCGTGTTAATTATTGAGTCTGTGCTGATTACACAGAATTAAGGATATAGTTTCTAA
AGTACTTCCATTTTTATATATTTTAGCATTATTCTGAAAGGCCTGGAAAAAACTATTTT
TTATTCGATTTGAAAGTGAAGTGACATAGGTGGGTCGCTATAGCAAGAAATTACCCTGTA
TTTTCCATCTCTATCATCACAGGCATCTCACAGAATTAGAAGTCGGACATTATTGATGG
ATATATTAGTCATGAATAATTAAAATACATTAAATATAAAATGGGTCAGATACGGGCAGA
TTT

Sequence 264

CNCGCGTCCGGGAGAAAAGAGTTTTATACCTAATTCTTNTGCAAGTGATTACATATTTTT
ATACCCAGGATGTTTCAGCAAGATGAACCTTTATTTTTAGATGTATCTATGGNTTTCCAC
CCATTTTATTAATTTTTAGAAATATAAAAGTGCCCTTTAAATTTAGCTGGGTTAAGATAG
TAAGTTTTAGGCTGAGGCAGGAGAATTGCTTGAACCCAGGAGGCGGAGGTTGCAGTGAGC
CTAGATCGTGCCATTGTACTCCAGCCTGGGCAACAAGAGCGAAACTCAGTTTCAAAAAA
AAAAAAAAAAAAAAAAAAAA

Sequence 265

GATCCTCTAAGTNCCCAATGATCNGAGAAGAAATATGAAAGGGAATTTTAAATATTTTG
AACTGAATGAAGATGAAAATGCCACAGATAAACTTTGCATGGGNGAGCTACATTAGTTA
GCTTAGAGGGAAATTTATATTTTTAAATCTTATATTAGGAAATAAGTCTTACATAAATA
ATCTCAGCTTCCACCTAAGAAGTTCAAAATAAACCCACAGTAAGCNGAAGAAAGGAAATA
ATAAAGCTGAGAAAAAATCAATAAAGTTTAAAGAGAAAAATTAATAGATATCAATGGAAC
AAAAGTTGCCTTTTTTAAATATCAACAAAATTGATAGACCTTTAGCCAGAATGATCAAA
AAAAAAAAAAAAAAAAAAAA

Sequence 266

CCCGCGTCCGCCTGAATTTTCAGAGTCNGTTGAGAAGGTAGGGAGCAGGGATCTCTCAGAC
ACCAACATGTTTCAGCTTTATTATAGATAAGGCTGAATTGATTTCTGGAATNGACCTTAC
TTCCCCACCTCCAACTGCAGGCCTTCCCCTTGCAGGTTTCAAGCATGTTAAGGTAAGTT
CACTGCAGAGATAAACAGGGTGAGGACAGGCCAGTCCTAAAAAAAAAAAAAGAAAAAAA
A

Sequence 267

CCGTTCTTTTTCCNAACTAAAGAATGCATAGGACATAAGTTAAAAGTTCATACATAACC
TGGCTTCAAATCCAGTTCTACCACTACCTGAAAACATCAGTTTATTTCTCATCAATGGGT
TGTTATAAAGTACCTAGCATAGGGTATTGCTTAAATGTTAATACTCCCAATCCTGACACT
AATGTTTCAGGGAAGAGTGAAAGAAATCACATTAACCTCCACATTATTGAACATCTTCTGT
GTCAGGCTGAATACATCTTTGTATCCATTGTCTTCTGGTTGTTTAAAGACTAGTGTAGAA
GCCTGACATGTAAATCGGTGATTATATAAGATAGTACTGTCTTGTAAATGTGTTGTGCTAG
AGAGGTTAAGTATTAATTATTATGGGAGCTCAGGAGAGGCACCCACTGGCTGCTGGGAGA

TABLE 1
49/467

AGAGCAAAAACCTATATATAAAGCAATTTTAAAGATTTTGGTTCTATAAGGGTAGAATGT
TCGATCCATTAGTGTATCCCAAAGTCCTATACACATGTCAAGATCGGGAAAGCTCACAC
ACACAATAATGCCCAAG

Sequence 268

CGTCCGGCCCCATGCCAGCCAAGTTATGTTGTTTGGTCAATTTTAGATAATTA
AAAAATCCTATGTAGTAACATCCTACTAGGAAAGAAGATAAACTCAANTATCCACTGAGTG
GTGACCTGAAACCAAAGAGACATGGAGGGGCAGCCAGTCAAAAGCCACTGCACTCCAGCC
TGGGCAACAGAGCAGGACTGTGTCTGGAAAAAATCTAGAAACATACTCAAATGT
AAACATAAGAACTTAGCATATGGTAAAGTTGTGACTGTGAGTCAGTCAGAAAAAGAAATGA
ATCAATCAGTAAATGGTCCTGGGAAAACCGGCTATTTATTTTAAATAATAACAAAATAT
GCTGTATATCATCAATGGATTAAAGATTTATATACCTTCAGCATATGTCCTTAAATGTTT
TAGAATAAAATATATATGAATTCATGTAATTTTGTATGTGAGGGAAGGCCTTTTAGACA
TGACACAAATGTCAAAAGCATAAAAGGAAAGATTTTGAATAAATAATAAAC

Sequence 269

GCGTCCGACAGATACACCATCATTATAGGTGGCCAAATCATTCAAATCGCTGTTTGCTTC
TTCTCGGGCTCTTATTCAAGCTCACGATGCTATTCTCATAGTGATTGCGAATCTCACTGC
ATAAAGGTGATTTTGAACACATCACTTTTCTCCACACTAATGTGTGAGCTTAGCCAGAG
TAGGAGATATATCTTACTTAAAAA

Sequence 270

CCCTTTTTNCGGCCNTNCGGGCAGGTACGCGGGGAGGTGATGCCCGTGTGAGCCAGGAA
AGGGCTGTGTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTCTCCGTGGTGCCAT
CTACATTTTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAG
GTCCTGAAATAAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCA
TTCCGATCGCTTTTTGGCCTTGATGATTGAAAATAAGTCCTGTTGCACCAGATGCAAGA
TGCTGTTGCTGCACAGATCCTGTCACTGCTGCCATTGAAGTTTTTCCAATCATCGGCAT
TGGGATCATTGCATTGATATTAGCACTGGCCATTGG

Sequence 271

ACCGCGGNGGCTTCATGCAAGCTGTGGGCATGGNCAACGATCACGAAAATCATTNTTCCT
TTAAATAAAATACAATCCTATNNAAGGAGTNCTTCCATGAGCAACAATCAAATACGTGC
TTATGCTGCGATGCAAGCAGGTGAACAACTGGTTCCTNATCAANTTGACGCAGGCGATT
ACAAGCCCATCAAGACGAAGTCAAAGTTGAATATTGTGGATTATGTCATTGAGATATTC
AAGTGATTAATAATGATTGGCCGATCATCTACTTATCCTGTAGNCGCAGGTCATGAAATC
ATTGGAACCATCACTGCTCTTTGGTTCATGAAGCGAAAGGACTCAAAG

Sequence 272

CCCTTAGCGTGGTCGCGGCCGAGGTACACCAAGACCAATTGCTAAAATCTTGGATTATGG
AAAATTTAAGTATGAAAGAAAGAAAAACAAAANGTTGAAAAAGAAAAACAATCTTTCAC
AAACAATAGAGAAATTCGTTTATCTTTTGAATCAATTTAAATGATATAAAATCAAAGC
AAAAAAGCCAAAGAATTTTATTAGATAACCGACAGAGTAAAAGTGGCTCTTCGTCTTA
GAGGGCGTGAAATACAAGACCTGAACAAGGTAAATTAATTTTAAATTCCTTTTTGATG
AAGNAAATCGATTGCAAAATTAAGTAAAGAANNGCAATCAGTTTGGTAATTTTAAAC
TCTTCATATTGAACGTGATAAGAAAAAATTACCCAAATTTACTTCTTCAAAACAAATAAA
GGAATTAATTGATTTTGAAAAACTATTNAAGGAAGGAAGAACTAATGCCTAANGCCAA
AAACAAATCGCACTTTAAAAAA

Sequence 273

CCCTTAGCGTGGTCNCGGCCTTTGTACGAAATTATGACTGTTTTAGCTNCAGGAACAGAT
TTAAAAGTAATTGAAGACGTTTTAAATCTGTTTTGATGCTAAGAACATCGAAAAAT
GAAAACTTGAAAGAACAGAGTTAGCATACGAAATTAACAAACAAACAAGGAATTTT
GTTTTAGCTAACTTAAATCTGAGGAAAGTTAATCGAAGAATTTGTCAGAAGAGTAAAT
ATTCTCAAAAAACAAGTTTTAAGATTTTATGTTATTAATCTAGATTCTGAAAGAGGAATG
CACAAAATTTTCAAGCCTAGAAAAATGATAAACACAAATTTTCTCTTCAAAAAACCA
ACANCTTCAACAGAAGAAGGTAAGTTTCAAAAACCATTTGTCAAAAACCTTTTGT

TABLE 1
50/467

AAAAAATCAGAAGAAACAGATTCTTCAAAACAAAATGANCAAGACAAAGTGCTAAGAAAA
CCAAAAACTGTAAAAACCAGCAAAAGATCCTAAAGTAGCTCACACAGCAAAAAAAAAAAAA
NAAAAAGTCCTGC

Sequence 274

CCCTTAGCGTGGTCGCGGCCGAGGTACNAAATTATGACTGTTTTAGCTCCAGGAACAGAT
TTAAAGTAATTGAAGACGTTTTAAATCTGTTTTGATGCTAAGAACATCGAAAAAATT
GAAAAACTTGAAAGAACAGAGTTAGCATACNAAATTAAAAAACACAAACAAGGAATTTT
GTTTTAGCTAACTTAAATCTGAGGAAAGTTAATCGAAGAATTTGTCAGAAGAGTAAAT
ATTCTCAAAAAACAAGTTTTAAGATTTTTAGTTATTAATCTAGATTCTGAAAGAGGAATG
CACAAAACCTTTCAGACCTAGAAAAAATGATAAACACAAATTTTTCTCTTCTAAAAAACCA
ACAACCTTCAACAGAAGAAGGTAAAGTTTTCAAAAACCATTTGTCAAAAAACCTTTTGTT
AAAAAATCAGAAGAAACAGATTCTTCAAAACAAAATGAACAAGGACAAAGTGCTAAGAAA
ACCCAAAAACTGTAAAACCAGCAAAAGATTCTA

Sequence 275

CCCTTAGCGTGGTCGCGGCCGAGGTANTTNCCTGANCAGTCGAAGTGGATGCCAGACCA
ATGGCCAGTGCTAATATCAATGCAATGATCCCAATGACGATGATTGAAAAAACTTCAAT
GGCAGCAGTGACAGGATCTGTGCAGCAACAGCATCTGCATCTGGTCAACAGGACTTATT
TTCAATCATCAAGGCCAAAAAGCGATCGGAATGAGAAGGGGGCTTCAACAGCAGGCGGA
TCATTTTCCCCCATGGTGACTATTTGAGGACCTCTGACATCCGGCTCCGCCTCCACCTCT
ACCTCATAATTCCCGAGTCCCAAAAATGTAGATGGCACCACGGAAGAGATAGTAGGCCAC
AAGTGTTACTGGCTTCCCATAAACACAAGCCCTTTCCT

Sequence 276

CCCTTTGAGCGNCCGCCCCGGGCAGGTACGCGGGGAAATGCAAAAAAATCAAATCAATTT
AATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATAT
TTCACCACTTTTAGCAAATGGAGAAGTGCTAAATTACACAATTAATCAAATGGCTGAGTT
AGCTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACC
TACTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGG
AGACGTTATTAGTTTTGAGTATGATTAGAATATGGTAAATCAACTCTAGAAATCCAAAC
TAATATGTTGAAAAAAGGCCAAAAAGTAGCAATTATTGATGATGTTTTAGCTACTGGCGG
AACAATGAAAGCGATTATTAACCTAATCGAATCTCAAGGTGCTGGTTGNTCATAAAGTAA
TCTTTTACTTGAATTANGATTTTTAAACCGGAATTGAAAAACTTAAAA

Sequence 277

CCCTTTGAGCGGCCGCCCGGGCAGGTNCTTCTAANGTTAAATCCTGAGGTAAGTCAACC
AAACAGGATGTGAATATCCTAATAATAATTCTAAAGTCTTATCTTTAATGTTGCTCTG
TAACCAACACCTTTGATTTCTAATTTCTTAGAAAAATCCTTTANAAACTCCGGTTAACATA
CCTTGTAATGATGAATTTGTAGTTCGNGTAATTGNTTAATATTTTTTTCTTCTGATGTT
CTTTTAGTAAGTAGAGTGTTTTCAACTTTTTCAATTGAAATAAATGATGAAAATTCCTTT
GATAATGTTCTAATTTACCTTTTATAGNTACTNAAGAATTGTTAATGTTTACTTCAACA
CCTTCTGNTATTTGTA AACACGATTTCCGACACGAGACAATATTAATTATCAAATGTAA
GCAATGGATTTCAACACCTACATTTTCCCTTTCTTGCTTGTATAATTAGGTTNAATAA
ATCCTTT

Sequence 278

CCCTTAGCGTGGTCGCGGCCGAGGTACAAGATAGTNNTCTCAGTAAAAGGTCTATTATCT
AACTTGCCAACTTGTTTACTGAGAGCCCTAAGGAACTAAACTGCCATAATGCCGTGCA
CAGCTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAGTTCCTCAGC
AGGCCTGGCTGAAGGCCAGGAGGGAAGGAAATATAAGANCCAACAATAAAAAATAGCACT
AGCAATAANAAGAATGCCATCCCATGGAGCACACCATAAT

Sequence 279

CCGAGGTACTAACTCTNTTTTAATGNNCTAACGTCATATTTTTAAGTTTTTCAATTCGG
TTTTAAAAATCCTAATTCAGTAAAAAGATTACTTTATGAACAACAGCACCTTGAGATTGG
ATTAAGTTAATAATCGCTTTCATTGTTCCGCCAGTAGCTAAAACATCATCAATAATTGCT

ACTTTTGGCCNTTTTCAACATATTAAGTTNGGATTTCTAAGAGTTGATTTACCATATT
CTAAATCATACTCAAACTAATAACGTCTCCTGGGTAATTTTTAGGGTTNCTTACCAT
AAATAAAAAGGGGTTTTTTAAAAAAAAGCTGGCAGTAAGGGTGTCCCAAACAAGAAAA
CCCTCTTGCGGTCTTGGGACCTATAATAACAATCTGCATCTTTAAGCTAAACTCAAGCCA
TTTGGGATTAATTGGTGTAATTTAAGCACTTTCTCCATTTGGCTAAAAAGTGGGGNGAA
AATATCTTTAAAAATACAATCCCTTCAATTGGGGAAAAATCTTTAACATCCTCTGGATG
GNATTTCTATTAAAAATTGGATTTGGA

TATTTGGTGAAGATCAGCGTTATCAGCATTTTCTACGATTAACGCTGGCCATGCTTTGA
CTGATGAAATCCGCCAAGCTATTCAGCAGTTGGCGATTGGGTGAGAGAAAGTCTCAAGT
CGAAATTGAGTTAGTCGAAGTCTGCTTTCAATACGATGCGATAACGTGCTTGACCTGAAT
GAAGTCGCTCAATGGCATCGTTGAGCTGTGACATAGGATAGAGTTCAATTTGCGGGGCGA
TATTTTACGTGCTGCAAATTTGAAGAAGTTGACGAAGTGCTAAAGGAGAACCCGTGCGT
GAACCTGTTACTGATTTGGCACCATCAATCAAAGCACCCGACTGAAACTGGGAATAGTT
CTAAAAGTCAGACCTAGAAAAATG

NGGTACCTCCACCGCGGTGGCGGCCGAGGTACANCTCTCGGCCCGGCTAAACATCATCG
TCTTGGTAGGTCATTACCNACCACTAATAATGNTCCGCACCCCCATTTTAAAGTAA
GCTGNGAAGCTCCTTTCTATTACTCATCATGCGATAAATACTATATCCGGTATTAAGCT
ATTGATTCCAATAGTTATCCAGNCTTAAAGGTAGGTTAGGTACCTGCCCG

CGANAAGCANGATTTTNAATTNTTGCAGCCCGGGGGATCCGNGGAGNNGGGGAGAGCCCAC
CGCGGGGGAGCGCCAACACGACNNAGAGCGAGNCGNAATACGCGCGCACACNGACCGCNG
ANNAACAAACGNNAGACGGGGAAAAACCGNGGCGNCCNCAACAAAAACGCCCGNGCAGCA
CAGNCCCCAAAAGCCAGCNAGGCGGAANANCGAACAGGCCCGCACCNAGCGNCCGNCCCCA
ACAGNAGCACAAGCCCCGAANGGCGAAAAAGGG

[illegible]

CGGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATNGGAAACAATAGCTAATAC
CGGATATAGNTATTTATCGCATGATGAGNAATAGAAAGGAGCTTCACAGCTTCACTTAAA
AATGGGGGTGCGAACATTAAGTTAGTTGGTAGGGTAATGGCCTACCAAGACGATGATGT
TNAGCCCGGGCCCGAGAGGCTGTACCTCGGCCCGCCACCGCGGTGnnnnnnnnnnnnnnnn
nnnnnnnnnnAGNCGTATTACGCCGCGCTCACTGGCCGGCGnnnnnnnnnnnnnnnnnnnn
nnnnnnnnnnnnnnnnnnnnnnnnnnnnnnACTTAATCCGCTTGCAGCACAAATCCCCCTTTTCGCCAG
CTGGGCGTAATAGCGAAAGAGGCCCGCACCCGAAC

CGTCCGTNAGGCCTGTNCTTACGGCTGGGTTTAGAAACCAGCCCATTAGAAAAGACTGAA
TCAGAACATGGATNAAGTGAAGTNATTCTAAGATGACTCGNNATCCATGTNGATTAATC

TABLE 1
52/467

TNCTGGNTCATAATAGGCCTCTTCCCTTTGATTGAAGGGTCACGTNTAAGTATANAAAAAC
ATAAACTGTAAGGTAGAGGAAGCGAAGGATAGCTTNGTATTAATGTTGCGTTAAAGCTT
CAGAGACAAGAACAAGAACTCCTCCCACGTGACAGCATTGTAATAGGAGGCGGNGGGT
GCNGCAGCCTGGGCAGCTTCAGTCCCGATTACAATAAAGTACCTTGNGNGTNATTAGTT
CTTAAATGTTTATTTAGAAATGGCATTGATGT

Sequence 286

GCGTCCGGTCACCGCACTGAACTTCGGGACCAAAAGCTTCCATGCCGCGNCCCCAGACA
AAGGCAGCTTCCCGCTGGACCACTTCGGTGAATGTAAAAGCTTTAAAGAAAAATTCATGA
GGTGTCTCCGTGACAAGAACTATGAAAATGCTTTGTGCAGAAATGAATCTAAAGAAGTAT
TTAATGTGCAGGATGCAAAGGCAGCTGATGGCACC GGAGCCGCTAGAGAAGCTCGGCTTT
AGAGACCTAATGGAAGGGAAGCCAGAGGCAAAGGATGAATGTTGAGAAGGGAGCCACAGG
ACCTTGTCCTCCAGCCTGGAGCAGAGCTGAGCCCTTCTGCCACAGNGCAGGGGGACCTGA
CACTCAGCCCGTGCTGGCCCGTG CAGGGGCTCTCCCTGGG

Sequence 287

CGTCCGGTGCACTGCAACTTNTATATNTAACCCTAAACTCCAATAAAACAAATTCAGGG
AAAACCAAGGGTGTAATGGGATGTGCGTGTTTATCAGGAGTGTGCTCTCACGTGGATGCT
GAATGATGGAGGACAGCGGACTGCATAAGCCAGAAACCTGTACGGGTGCTGGCTGTGGAA
AGACGTGTCTGTCTCTATCTATGTACAATAGTTNATTCTGTCAGGCTGAAAAAGTATGGT
CTTTAGGACCTTGCCCTCTAACTATAGAACTTAAACAGTGTACTGCTATTAGATATAT
CTGATATTAATAGAACATGCCAAGTGCAGGTCCCAAATGCGTATTTGTGAAGCACACATC
TGAGTAAATGGCTTAGATGGAAAGCAAGTCATCATGAGTAAAAATTAAGCCTCAAACCTG
CCGGTGCTCCTCACCTCTTTGT CACCAGGTAAAGGTCACACTGTGTGTTGCTTTGNTGT
CTTCTCTCCTAACCTAG

Sequence 288

CNCGCGTCCGGGGCTTGTTTACTATGGCCGATGATCTGGAGCAGCAGCCTCAAGGCTGGC
TGAGTAGCTGGCTGCCACGTGGCGCCCCACTTCCATGTCTCAGCTGAAGAATGNGGAAG
CTAGGATCCTCCAGTGTCTCCAGAATAAGTTCTGGCCAGATATGTGTCCCTCCCAAACC
AGAATAAAGATCTGGACGGTGA CTGTGAGCCCCGAGCAAAGGACCGCACCCCCCTGGTG
ATGGTGACGGTTTTGGGGGCGGCGTGGGCCTCTGGATCCTCAACATGGACTCACTGAGT
GCCCCCGGCACACTGCACACCTTCGATCTGCTTGNTTTGGGCGAAGCTCAAGGCCAGCA
TTCCCGAGGGACCCGGAGGGGGCTGAGGATGAGTTG

Sequence 289

NGGAAAGCCGGCATAAGTGACATNGTTTGGGCAGTTGCCNGCTGGACTGAAGGGCNAACC
CANACCACCTTAAGCCATAAAAGCCCGTGACACTGCTANCAAGGTGCCTTGCCCACCGC
TTTGCCACCNGTCCCGGAAATGNAAAAAAAGTCGCGTGCCNTAAAAAGCTGCCGGAAGG
NCCTGGGTGNACNTTTGGGCCACCCCCACCCCGCTGGCAAGGNCTTGAATTGNGTNACNC
CAAAAGACGCCANGCCGGACCTTGGNAAANNATTGTTNTTTNGGGANAAAAAAAATG
GANCCCGNTGGGGGAGGCCCTTGGGGGCATTGNGNAAGCCCCCGGAGGGTTCCCGNTGT
TGGCNGGGGTCAAATTCAAAGGCCAGTGGTNGGCCACCCCGGGAACCTGGNNGCTGTTG
CAAGNACCNNGGTGGGGAACCGTTTCAAGGAATACCCCAACCAACCCANGTAGCCACCTT
AAGGTAATTTGGCCACCTTGCCACCANAANGGCCATTGGGGAAGAAACCACCAAAAA
CGTCCCCCGGGT

Sequence 290

CCCCGCGCTCAGTATGACTCTTTAGTCCAGTTTTTCATGGGTAGTCTCTAAATCTTTAC
CTTTATGTGATTGTGAGTTGGGAGGTGGTGGGCATCATCTTAGTCCATTTACCTTTTTCA
GTTTTGTAATTATCGTCTTCATCTACTACCTTTATATAATAAAGGGAAGGGGTCTTCC
TTTACAAATAGTTTTATCATCCTTCTCTTTTTGATGTCTATATCTTCTATTTTTTGAGGA
GAATATATGTTGTATAGACCTACACGTGGGTGGAAGAAGAGTCATGTATGTGTGATTGTG
TGAGATCCAGAATGTTGGAACCTTTAATTTCTTATTTGTAATTATAATTACCTGCTGGA
ATACCTGGTTGCATTCTGTATATTGTACCCTCATTTAAAGTTTCATGGAGGCAAAATAAC
TCTGTTGCACATAAGGCCGGGGCTTATGCATGTCCTATCGGATGTGGGCTCAGATCACGG

TABLE 1

53/467

AAGACCCGAA

Sequence 291

TCTTGCAGACTCAAGCTCCGCGCGCAGCCGCTCCTGGTGCGGGCCACAGCAGCCTGGGC
CCCGGNTCGGCCCCGGAGCCCCCTGGCCTGCGACGACTGTTCCCTTCGATCGGCCAAATC
CTCCTTCAGCCTCCTGGCGCCCATCCGCAGCAAGGACGTTGCGAGCAGGAGTTACCTGGA
GGGCAGCCTNCTGGCCAGNNGGGGCCCTGCTGGGGGCAGACGAGCTGGCCCGCTACTTCCC
AGACCGGTACGTGGCGCTCTTCGNGGCCACCTGGAACATGCAGGGCCAGAA

Sequence 292

NGGCCCGCCCGGGCAGGTAATAACTTTAATTAATGAGCTAACGTCATATTTTTTAAGTT
TTTCAATTCCGTTTAAAAATCCTAATTCAAGTAAAAAGATTACTTTATGAACAACAGCAC
CTTGAGATTTCGATTAAAGTTAATAATCGCTTTCATTGTTCCGCCAGNTAGCTAAACATC
ATCAATAATTGCTACTTTTTGGCCTTTTTCAACATATTAAGTTTGGATTCTAGAGTTG
ATTTACCATATTCTAATCATACTCAAACTAATAACGTCTCCTGGTAATTTTTTAGGTT
TTCTTACCATAATAAAGGTTTTTTTTAAAAAGCCTGCAGTAAGGTGGTCCCAAACAAGA
AAACCTCTTTGCGTCTGGGACCTATAATAACCATCTGCATCTTTAGCTAACTCAAGCCC
ATTTGATTAATTGGNGTAATTTAGCACTTCTCCATTTGCTAAAAGGTGGTGAAATAATCT
TTAAATACAATCCCTTCAAATTGGGGAAATCTTTTAAACATCCCCCGCGGTACCTCGG
GCCCCGTTCTAGAACTAGTGGGATCCCCCGGGCCTG

Sequence 293

GCTCCCCGCGGTGGCGGCCGCCCGGGCTGGTACGCGGGGAAATGCAAAAAATCAAATCAA
TTTAATACGAATACATCATGAGATGTTAAAGATTTCCCAATTGAAGGGATTGNNTTTAA
GATATTTCAACCACTTTTAGCANATGGAGAAGTGCTAAATTACACAATTAATCAAGTGGCT
GAGTTAGCTAAAGATGCAGATGTTATTATAGGGCCAGACGCCAAGAGGTTTCTTGTGTTG
GACACCTACTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATT
ACCAGGAGACGTTATTAGTTTTGAGTATGATTTAGAATATGGTAAATCAACTCTAGAAAT
CCAAACTAATATGTTGAAAAAAGGCCAAAAAGTAGCAATTATTGATGATGTTTTAGCTAC
TGGCGGACAATGAAAG

Sequence 294

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATTTCTAATTG
ATCCTGTTACATTCAAGTGAATGGCATTGCATATTTATATGTTGCTTACAGCTTATTGA
TTTAGGTAATATTGTGTCTTCTTCACTATCTGACCTGAAAAGCACTCTCTTCTCTATG
CACTCTTATATTCTGCCTTTCTGCCTGGAGTTTGAATACATGTCTCTTTAGTTTCTTT
GCACATGCTACATTGTGCTTTAGACCGGGAGATAATACAGGNGCCTTACCTTACAAATTN
ATNTTTNTGGCAACNCNAATTNTNTNGAAATTTTNTTTAATTTNAAAACCCCAACCAA
TTTTCCNNCNAAAAAATTTTTTTTTGGGAAAAATTAANTTCTTTAAANNNAACCCCCCN
AAAAATTATNGGNGNNAAGGGNGCCCNNTTTGGGCCCTTTTTTTTTTTCNCGGGNG
GGGNAAAAAATTTNAAAAAANTTTTTTTGGGNCCCCGGGAGAAAAANNTCCCTNTT
TTTTTTTTCNGGGGTTTTAAAAANGGGGGGNAAAAATNTTNTTGGCCCCCCCCNTTT

Sequence 295

TATAGGGCGAATTGGAGCTCCCCGCGCGNGGTCCCAAATGGAAGTGTGAAAACCANGGCC
CATCCCCCNNTTTNTAGAGGGGTGGTAAAAAATAAACCANANATCAAGGGGAGAAAGG
AAAAGGATGAAAGGACAACTGCCAAAAAATTTNCCCAAAGTGGCGACTTTTTTAANTN
TGGGAGCCAGAATTCTGAGGGCTTTGCATTGTCTTTGCAATTCNCTCAAGGAGCCTGAAA
TTGAAAAAAATGCCAACAGGCCAAATNACTACTTTTTAGGAGGGGGTTTTGGAGGTC
TTGGGAAGCCTCATTTCCNTTCAACCNNTCNAATTCTGGGAATGGGGGAAATGGAAAGAA
TAGAAGATGTTGGGTGCCCACTAGGCTACTGNTTGAAAAGGGGAAGCTTGAAAANTTNCT
NCACCCAAGGTTGGGTATTCAAAAATATTGTAATGGACTGGGTATTGGCAAAAAGG

Sequence 296

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACAGGTGGGTCCCTTTTCAGAGGT
TGGGCCCTTCTAGACCTCACCTGTTCTCACTNCCCTGGTTTAAATTCAACCCCAAGCCATG

TABLE 1
54/467

GCCAATGGCCAAATAATAGAAATTGGTTCCTACCCAGCTGGACCAGGGGAGGGAGGTCT
TGTGCAGTTTCTTGACCACTTTGTTGGTTGGACCATNGGCTTAAATACCAATGGGGTATT
CGGCTTGAGACCTAAAGTTTGTAAAGAAAATTNAACCAAAATGGTGCCTGCTTGGGTAA
AATGGGCTACCACCTCAATCTGGACTTCAATTCTTTAATTCTAATTTAAGTTTGGGT
TTGGTATTCTTTGGCCTAAAGGTGGCGGTAGTCCCAACCTCTTGGGTANTTACCCCTTC
CTAAATAGGTCAATACCTAGGTAGGTCAATACCTCCCTGGGTGGTAAGGNGGTATTTCTT
CTTAAAAAAGCCTTTTAAAA

Sequence 297

CCGCGGTGGCGGCCGCCCGGGCAGGTACGGCCACACTGGGACTGAGATACGGCCCAGACT
CCTACGGGAGGCAGCAGTAAGGNNTTTTCCACAATGAGCGAAAGCTTGATGGAGCGACAC
AGCGTGCAGGATGAAGTTCTTCGGAATGTAACTGCTGTTATAAGGGAAAAAAAAAAAA
AATAANNAAAAAAAAAANGGTACCT

Sequence 298

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGNCAGGTACGCGGNGAAATGCA
AAAAATCAAATCAATTTAATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGG
GGTTGTATTTAAAGATATTTCAACCACTTTTAGCAAATGGAGAAGTGCTAAATTACACAAT
TAATCAAATGGCTGAGTTAGCTAAAGATGCANATGTTATTATAGGTCCAGACGCAAGAGG
TTTCTTGTGTTGGGACACCTACTGCAGCTNTTTAAAAAACCTTTTATTATGGTAAGAAA
ACCTAAAAAATTACNAGGAGACGTTATTAGTTTNGAGTATGATTTAGAATATGGTAAATC
AACTCTAGAAATCCAACTAATATTTTGAAAAAG

Sequence 299

CCGGGCAGGTACGGCCACACTGGGACTGAGATACGGCCCAGACTCCTACGGGAGGCAGCA
GTAAGGAATTTTCCACAATGAGCGAAAGCTTGATGGAGCGACACAGCGTGCAGGATGAAG
TTCTTCGGAATGTAACTGCTGTTATAAGGGAAAAAAAAAAAAAAAAAAAAAAAAAAAA
GTACCT

Sequence 300

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTCTAGGACAATCAGGAAG
TAATCTTAAAAAATAATTGAAGATGTTAAAAATACGTTAAAAATAAAAACTTGTTTT
AAACATAGATGCAGTAGAAATTGAAAAACCAGATTTAGATGCAAAATTATTAGCTGAATC
AATTGCAATTAATTAGAAAACCGTGGATCATACCGTATGGCACAAAAATTGCAATTCG
TTTAGCACAAAAAGCCGGAGCTAAAGGTATTAACCTAAAGTTAGTGGTCGTTTAAATGG
TGTTGATATGGCTAGATCAGAAGGATATTCTGAAGGTGAAATGAAATTACACACACTTAG
ACAAGATGTTAGTTATGCAACAGCAACGCAAGAACAACCTTATGGAGCACTTGGAGTTAA
AGTTTGAGTTTCATTAGGCGAAGTATTT

Sequence 301

CCGGCCAGGTACGCGGGGAAATGCAAAAAAATCAAATCANGNTAATAGAATACATCAGAG
ATGTTAAAGATTTCCCAATTGAAGGGATTGNATTTAAAGATATTTCAACCACTTTTAGCAA
ATGGAGAAGTGCTAAATNACACAATTAATCAAATGGCTGAGTTAGCTAAAGATGCAGATG
TTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACCTACTGCAGCTTTTTTAA
AAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGGANACGTTATTAGTTTNG
AGTATGATTTACAATATGGTAAATCAACTCTAGAAATCCAACTAATATGTTGAAAAAG
GCCAAAAAGTAGCAATTATTGATGATGTTTGTAGCTACTGGCGGAACAATGAAAGCGATTA
TTAACTTAATCGAATCTCAAGGTGCTGNTGTTTATAAAGNAATCTTTTACTTGAATTAG
GATTTTTAAACGGNATTNAAAACTTAAAAAATATGACCGTTAGCTCATTAAATAAAAG
TTTAGTACCTCGGCCCGCTCTAG

Sequence 302

AGGTACTTTGATATCTNCGCCCTCTCGTGTGTTTCTTGTTGGNGNTAACCAGAGGCAAGAT
GCCCCAGGAACCTTCATGTGTATGTCTACCAGGATTTAGATGATCTCTAATAATGGAGGA
CCTGCTATTATTTGTAAGAGTGCCAGAAAACATGAAAGGTGTTACAGAAGATGGCTGG
AACTGCATTTCTTGCCCTAGTGACTTAAGTCCGAAGGAAAATGTCACTGTCCCATTTGGC
CATATTTTGTAGTGAAAGAGACATTNATGGAACATTGNTGNCTCAAGCAACTNGNGAGCTC

TABLE 1
55/467

TGNGATGGAAATGAAAACTCTTTTATGGTAGTAAATGCTTTAGGAGACAGGNGCGTNCGA
TGTGAGCCAACATTTGNTAATACCAGCAGGTCCTGTGCATGTTNCGAACCTAACATTTTA
ACAGGGGGATTATGTTTCAGNAGCACAGGGAATTTTTCCTTGACGTANAATTTACCTG
CACGTTATGGAGAAGTTTGGCAT

Sequence 303

CCGGGCAGGTACGCGGGGAAATGCAAAAAATCAAATCAATTTAATAGAATACATCAGAG
ATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATATTTCACTACTTTTAGCAA
ATGGAGAAGTGCTAAATTACACAATTAATCAAATGGCTGAGTTAGCTAAAGATGCAGATG
TTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACCTACTGCAGCTTTTTTAA
AAAAACCTTTTATTATGGTAAGAAAACTAAAAAATTACCAGGAGACGTTATTAGTTTTG
AGTATGATTTAGAATATGGTAAATCAACTCTAGAAATCCAACTAATATGTTGAAAAAG
GCCAAAAAGTAGCAATTATTGATGATGTTTTAGCTACTGGCGGAACAATGAAAGCGATTA
TTAACTTAATCGAATCTCAAGGTGCTGTTGTTTCATAAAGTAATCTTTTACTTGAATTAG
GATTTTAAACGGAATTGAAAACTTAAAAAATATGACGTTAGCTCATTAAATTAAGTTT
AGTACCTCGGCCGCTCTA

Sequence 304

GCGGTGGCGGCCGAGGTACCTTNTCCGAATGCACCTTNAAGCGGGTATTAGCCTATACA
GGCTGTTTTAGTCGAATGCAGACCATCAAGGAAATTCNNGAATATCTATCTCAAAGACTG
CGCATTAAAGAGGAAGATATGCGCCTGNGGCTANTCCANAAGTGGAGAANTACCTTACTC
TTTCTGGGNTGATGAGGAATCATAAATCTGGAATATTTNGAAAAATCCAGGATGAACAACA
C

Sequence 305

GCNGNCGCGGGGAAATGCAAAAAATCAAATCAATTTAATAGAATACATCAGAGATGTTA
AAGATTTCCCAATTGNNGGGATTGTATTTAAAGATATTTCACTACTTTTAGCAAATGGAG
AAGTGCTAAATTACACAATTAATCAAATGGCTGAGTTNAGCTAAAGATGCAGATGTTATT
ATAGGTCCAGACGCAANGAGGTTTCTTGTTTGGGACACCTACTGCAGCTTTTTTAAAAAA
ACCTTTTATTATGGTAAGAAAACTAAAAAATTACCAGGAGACGTTATTAGTTTTGAGTA
TGATTTAGAATATGGTAAATCAACTCTAGAAATCCAACTAATATGTTGAAAAAAGGCCA
AAAAGTAGCAATTATTGATGATGTTTTAAGCTACTGGCGGAACAATGAAAGCCGATTATT
AACTTAATCGAATCTCAAGGNGCTGGTGNTCATAAAGTAATCTTTTTTACTTGAATTAG
GGATTTTTNAACCGGAAATTGGAAAAA

Sequence 306

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACGCGGGGCAATTA
TGAAATTATTGCAGAAAGAAGATTCCTCTCACCTGATGAATAAGTGTTTCATAGGTNAAG
GCTACAAAATACTAATTTGTTATTATTTTAAATAAATTTTTGTTTTGCTGAGAAAGTG
GATTTACCACTTTTTTATTTTTTAATCCAAGGAGGAAAAATTATTTCCAAACCAATCCT
AAAAATTTTTACGTTCTAAACCAGTTCAAGAACATTGAGTAAACAGAAATATTCCATTT
GTCAAAGTTTTTCTTATCGGCTCAGATAATGAAAAAATTGGGATAATTGAAACAAGAGAA
GCTATTGAAATGGCAAAGAACAACAAA

Sequence 307

CGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGCAGCAAGCGGACGTGAGC
GATAATGGCGGATATGGAGGATCTCTTCGGGAGCGACGCCGACNGCGAAGCTGAGCGTAA
AGATTCTGATTCTGGATCTGACTCAGATTCTGATCAAGAGAATGCTGCCTCTGGCAGTAA
TGCTCTGGAAGTGAAAGTGATCAGGATGAAAGAGGTGATTCAGGACAACCAAGTAATAA
GGAAGTGTGGAGATGACAGTGAGGACGAGGGAGCTTCACATCATAGTGGTAGTGATAA
TCACTCTGAAAGATCAGACAATAGATCAGAAGCTTCTGAGCGTTCTGACCATGAGGACAA
TGACCCCTCAGATGTAGATCAGCACAGTGGATCAGAAGCCCCTA

Sequence 308

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAATGTTATTAATGTGACTGACA
AGTAATTAGAAAACTGGAAATTAATTTTACAAACATTTTAAAAATCGCTNCAATTAATAA
AAATTCAAGATGGTTACATTATGAATATGAATGAAATGTCATTAGCGACTTCGTTAAATG

TABLE 1

56/467

TATATGTAATTCTATATTTTCCCCAAAACCCACATTTTATGAAGAATATTTATTTATTTA
TTTATTTTTGTTTTTGAGATGGAGTCTCGCTCTGTTGCCAGACTGGAGTGCAATGGTGC
GATCTCCGCTCACTGCAACCTCCACCTCCTGGGTTCAAACGATTCTCCTGCCTCAGCCTC
CCGAGNAGCTGGGACTACAGGCACCGNCACCACGCCCGGCTAATT

Sequence 309

CCGCGGTGGCGGCCCGCCCGGGCAGGTACTGACCCTCCTTGATGGTTTACTTTGCAAGCTA
TGGTGACCTCCGCAAGTTGTGTCTGGGCCCATCCAGGGCTCTGACTAATTGTATTCAAAT
CAAGGCAGGAGCGGGCCAGCTGGCGTTGACTTAACCAAGCCATTTTATAAGCCTCCCGAT
CATTTTTAAGCCACTCTAAGTCGTGTAGTAGGATCTGGTCAGAGTTATGTATACTCTGAT
GGGCATGTGCTGTGTCTGTCTAAAATGTCCAGAAGTTCTGAAACACTTTTAGATCTTCCAG
AATTTCTTGAGGAAGTCTGCCTAAGTAAGTATGCACATCAAGTTCATCACCGGAGGAAT
CAAAAGAATTTCCATTTTCTATTTCTCTACAGAAAAGAAAAGGATCTTCCTTTAAGATGG
AAATATTATTTCTCTTC

Sequence 310

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACTTGAATTATCTA
TTGAAAGAACTACTACATCGAGTTTTTGTCTTTTGCCATTTCAATAGCTTCTNNTGGNN
NAATTATCCCAATTTTTTTCATTATCTGAGCCGATAAGAAAACTTTGACAAATGGAATAT
TTCTGTTTACTCAATGTTCTTGAAGTGGTTAGAACGTGAAAAATTTTAGGATTTGGTT
TGGAATAATTTTTCTCCTTGGATTAAAAATAAAAAAGTGGTAAATCCACTTTCTCAG
CAAAACAAAAATTATTATTAATAATAAATAAATAAGTATTTTGTAGCCTTTACCTATG
AACACTTATTCATCAGGTGAGAGTGAATCTTCTTTCTGCAATAATTTCTAATTGCCCGN
GTACCTGCCCGGGCGGC

Sequence 311

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGNCAGGTACCTGACTGTGGC
TCANATCTGCGTCGCAGCAGCGAGAGAAGAAATCACTCCATATCCGATGAGAGGAAGGGT
GGCACAGANATGGTGTCTACAATTAGAGACATTTCTGACTCCACCTTAGCCTAAGCAAAC
TTTATATACTGAGTAACATTTGAAGGTTGTCTTTAATGGTGGGGGGTGNTTTTTCTTT
TTAAACTACAGT

Sequence 312

CCAAAANGGNCCTGGGGCGTGGTCACGGCCNAGGTACAAAATTATGACTGTTTTAGCTC
CAGGAACAGATTTAAAAGTAATTGAAGACGTTTTAAATCTGTTTTGATGCTAAGAAAC
TCGAAAAAATTTGAAAACTTGAAAGAACAGAGTTAGCATACGAAATTAANNAGCACAAA
CAAGGAATTTTTGTAGCTAACTTAAATCTGAGGAAAGTTAATCGAAGAATTTGTC
AGAAGAGTAAATATTCTCAAAAAACAAGTTTTAAGATTTTTAGTTATTAATCTAGATTCT
GAAAGAGGAATGCACAAAACCTTCAGACCTAGAAAAAATGATAAACACAAATTTTCTCT
TCTAAAAACCA

Sequence 313

AATNGGCGCTNGCGTGGTCACGCCAGGTACNAAATTATGACTGTTTTAGCTCCAGGAAC
AGATTAAAAGTATTGAGCNTTTAATCTNTTTTGATCTAAGACATCGAAAATTGAAAAC
TGAAAGACAGAGTTAGCATACNAATTTAAANGCACACAGGATTTTTGTTTTACTAACT
TAAATCTGGGGAAGTTAATCNAAGATTTGTCAGAAGAGTAAATATTCTCAAAAAACAAG
TTTTAAGATTTTTAGTTATTAATCTAGATTCTGAAAGAGGATTGCNCAAACTTTCAGAC
CTAGAAAAATTGATAAACACAAATTTTCTNTTTTAAAAA

Sequence 314

NGGGCCTNGGNGTGGNNACGANCCAGGTACTTTTACCAAAGAATCTACTAGAACTCTCTG
CTATTCAAAACAAAGAGCTCATACTTGTGGAGTAGGGAAAAAATTAGAAATTTGACCAA
AAGATAGATTCAATCAACTACAAAGTCAATTCCAAGATGCTGNTAACATCGAACTCTTG
AAAAAGAACTATTANAATCTGGAGTTGAACTTTAATGGATCATATACCTGNTTGTCTGA
TCAAGCGGATTGNTCAGCTTAATATTAAGAAGATGGNATCTATTTAGATCTTACTTTAG
GACGNGGNGGNCATTGAGNCAATTTTAAAAAACTTACTA

Sequence 315

TABLE 1
57/467

CCCTTTGAGCGGCGCCCGGGCAGGTACTTGTCCATAATTTGTGAATATATTAATAAT
TTTTCTTTGAGTATTCATTTACTAACTCATAAGCTGAAAAGCTTTGAGCTTGATTCATT
CTCATATCCAAACGAGCTTGTTTGTGTATGAAAATCCTCTATTGGCTTGATCTAACTGA
GGTGAAGATACTCCTAAATCAAGTAATACACCATCTACTTTGTTGATTTGAAGTTTTTT
AGTTCTTGATCAAAATCTTTAAATCAGATCAAATAAATTCAATATTTGAAGAAATTTT
AAGAGTTTTCTTTGTTTGTTCATTGCTTGTCTTTATCAAAGACTA

Sequence 316

CCCTTAGCGTGCTCGCGGCCGAGGTACAGGAAGTCCAAAGGCAACAGAAATCTTCTC
CCTATGTCCAGCCTACCCCACTTTACCGAGGCCAACAGCCGCTCAGAAACCAGATTC
AGGAGCTAACATGCCCCAGGTCTCACGAGGATCAGAGACTCCAGAGGCCAGGGAAGGAGA
TCAAGGTAGTCAAGCGGGGGTCTGCTCAGATCTGGTTGTGCTCGAGCTATGCAAATGCCT
CTCATGGAGATGTGAGGACCTATCTATTATGATGACCAGGGCCACATCCGGAGGGGGCAA
CAGACTTTCATCTATCAGCCCTTTCAACCACTGATCTACTAACTGGAAACACTCTGAA

Sequence 317

NGGGCCTTGNGAGCGGCGCCCGGGCAGGTACGCGGGGGTTTAAAAAATATTTAAAAA
ATGGAGGAATTATGAACTTAAAAAGCAAATTAAGAAGCTTTTAGGTGCTACTGCACTTG
TGTTGCCAGTAGCATTTTTTCTTCTTGCCAAACAAGATTTGNNNAAGTAAATGACCATA
AATTAGTGATTGCTCACACTTTAATAGTAGAGAAGGAAGGTTTTAGCATTAGATCAAA
TTGTTAAGCTTTGAAATGAAAGTAAAAAGTTAAAAACAAAGAAGAAGGATTTTATCCAA
TAACACTAAATCGACAATTTGCGCAAATCTATGCAGAA

Sequence 318

CAGGTACTTTAGCTCCAAATCAGTTTGATGAGATACAGTTGCCCTATATGAGAATGCA
CAGGATTCCTCATTGGTGAGTTCAACCATAACATTTGGGTAACTCCTGAAGACATCTGCA
AATTGTGAGTTAGTTGGTGGGGTCCATTAACTTTGCATATGTTATTCTTTCTACTGAAG
TGTGTGAGGCCACAACGTCCCATATGCATATCANAAACAGAAATTTGTTGAGGATAAT
TTGGATATTACGAGNGGCTGNGAACTGGATTGAATTACCGGGATACATGCATGCTT
CTTGTT

Sequence 319

CCCTTAGCGTGCTCGCGGCCGAGGTACGCGGGGCAATACGTAGAGATAATAACAGTTTTT
TAAAAACTTAATATTTGTTATTGAATGTATATTTTGAAGTATTGCATCTTTTCTATACT
AATAAGGAGGTGTAATTTGAACGCTTTAGAAAGAAAAAAGAAGAAATAGTGCAAGAAAT
TAAAGATTTGATTAATCTTCTTCTTCATTAGTTATAGCTGAATATCGTGGATTAACAGT
TGCTGAAATTGAACTCTTAGAAATGAAGCTTAAAGAAGCAGGTGTTTTGTAAAAGTTT
ATAAAAAAGACTATTTAAATAGCATCTAAAGAAGCAGGTTTCGGAGATTTAGAACAAT
CACTAGTTGGTCCAAATTTTTTGTCTTTGGTTCTACAGATGCANTAGCTCCAGCTAAAA
TTATTTCAAATTCGCTAAAAACAAATCCAGTAAGTTGTATTAAGGCGGTATTTTTTG
A

Sequence 320

CCCTTAGCGTGCTCGCGGCCGAGGTACCACGGAATTTTAAAAATAGACTNTAAAAAACCN
TCAATTGCANAATAATTTGNTTGATTTACTTCAAATTGAAGGAAGCTTTTAGGTTTT
GTTGNAATAGTAAANGAAATTCGATNAGTAATCAATCAAAGAATAATGAATNGACAAAT
TCTGACATAAAAAACAGCCAAAGAAATATCATTTAGAACAATAANAGCGCTTAAAAAACT
TCAAATTAACAAATATAATTTATAATTTATGGCACTATGAAAAAAGNGACTTTATTTA
ATATCAACTTTTANCATTTTCAACAATTTTATTAGCTATTNCTNGTGGTAAAAATCAAAT
ACTCCTGTAGGCACACAACCANTTGATANTCCAAGCCTGGAGGATTCATCAAGNGAATCA
ANAGTTCTGGATTTAAATTAATAGAAAAAAG

Sequence 321

CCCTTAGCGTGCTCGCGGCCGAGGTACAATTTCTAATTGATCCTGTTACATTCAAGTGAA
ATGGCATTGCATATTTATATGTTGCTTACAGCTTATTGATTTAGGTAAGTATTGTGCTT
CCTTCACTATCTGACCTGAAAAGCACTCTCTTCTCTATGCACTCTTATATTCTGCCTTC

TABLE 1
58/467

TGCCTGGAGTTTGAAATACATGTCTCTTTAGTTTCTTTTGCACATGCTACATTGTGCTTT
AGACCGGAGATAATACAGTGACTTTACCTCACAAATCATATTCTGTCAACACAAATCTAT
GAATTTAGTTTATTTAAAATCAGAACAATTTCTACAAAATTTTCTGGAAAATAGACTC
CTAACAGACCTACCAGAATCATGCTTAAAGGGCTCCCTTGACACTTATTCTATACTGAAG
GATAAATTTTAAAAAAT

Sequence 322

CCCTTCGAGCGGCCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTAGTTAA
ATATAAATTTATTTATTAACCTTTTCAATACCTTTGAAGGTCAAAGTTTGTAGATGAA
TTAGGTTCTTTTAAAAGTAAATCCCACAAGTCAAAGTGCAGCTAGAATAATAAATACTG
CATATGCAGCTTCTGTTGATGCTGATTTAATTCCTGCAACTAGAACAGTTGCTATAGAAT
AAAATGCATAACCTAATCCTCANATAAGTCCAAATTGATATCCAACCTTTTTTAGGATTTG
ATCCTTTGATTTCGGGAGGAAGATTTAAGATAACACCTTGAATTCCTCAAAGCATTACTC
CCATTAAAAATCCTAAAAATAGAATAATCAAGTTCATTACCTA

Sequence 323

GCGGTGGCGGCCCGCCCGGGCAGGTACAAGGTAAAGCAAGAGCTGGCTCTCTACGTTACCC
AATTTTTGTAGGTGGTGGTTCGTGCATTTGGGCCTACAAATAATAAAAATTACAAAATTAA
ATTAACAAAAAAGTTCGCAAATTAGCTTTTGCCTCAGCTTTTAAGTCAACTTGCTCAA
ATAATCAAGTACCT

Sequence 324

NNCTTAGCGTGGTCGCGGCCGAGGTACGCGGGGAAATGCAAAAAAATCAAATCAATTTAA
TAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATATT
CACCCTTTTAGCAAATGGAGAAGTGCTAAATTACACAATTANNCAAATGGCTGAGTTAG
CTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACCTA
CTGNAGCTTTTTTAAAAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGGAG
ACGTTATTAGTTTTGAGTATGATTTAG

Sequence 325

CCCTTCGAGCGGCCCGCCCGGGCAGGTACTTGTCCATAATTTGTGAATATATTAACCTAAT
TTTTCTTTGAGTATTCATTTACTAATCATAAGCTGAAAAGCTTTGAGCTTGATTCATT
CTCATATCCAAACGAGCTTGTTTGTGTATGAAAATCCTCTATTGGCTTGATCTAACTGA
GGTGAAGATACTCCTAAATCAAGTAATACACCATCTACTTTGTTGATTTGAAGTTTTTT
AGTTCTTGATCAAAATCTTTAAAATCAGATCAAAATAAATCAATATTTGAAGAAATTTT
AAGAGTTTTTCTTTTGTGTGTTCAATTGCTTGTGTCTTTATCAAAGACTA

Sequence 326

CCCTTAGCGTGGTCGCGGCCGAGGTACAGGAAGTGCACAAAGGCAACAGAAATCTTTCTC
CCTATGTCCCAGCCTACCCCCACTTTACCGAGGCCAACAGCCGCTCAGAAACCAGATTG
AGGAGCTAACATGCCCGAGGTCTCACGAGGATCAGAGACTCCAGAGGCCAGGGAAGGAGA
TCAAGGTAGTCAAGCGGGGGTCTGCTCAGATCTGGTTGTGCTCGAGCTATGCAAATGCCT
CTCATGGAGATGTGAGGACCTATCTATTATGATGACCAGGGCCACATCCGGAGGGGGCAA
CAGACTTTCATCTATCAGCCCTTTTCAACCACTGATCTACTAACTGGAAACACTCTGAA

Sequence 327

NGGGCCTTGNGAGCGGCCCGCCCGGGCAGGTACGCGGGGGTTTAAAAAATATTTAAAAA
ATGGAGGAATTATGAACCTAAAAAGCAAATTAAGAAGCTTTTGGTGCTACTGCACTTG
TGTTGCCAGTAGCATTTTTTGTCTTCTGCCAAACAAGATTTGNNNAAGTAAATGACCATA
AATTAGTGATTGCTCACACTTTAATAGTAGAGAAGGAAGGTTTTTAGCATTAGATCAAA
TTGTTAAGCTTTGAAATGAAAGTAAAAAGTTAAAAACAAAGAAGAAGGATTTTATCCAA
TAACACTAAATCGACAATTTGCGCAAACCTTATGCAGAA

Sequence 328

CAGGTACTTTAGCTCCAAAATCAGTTTGATGAGATACAGTTGCCCCTATATGAGAATGCA
CAGGATTCCTCATTGGTGAGTTCAACCATACATTTTGGGTAACCTCTGAAGACATCTGCA
AATTGTGAGTTAGTTGGTGGGGTCCATTAACATTTGCATATGTTATTCTTTCTACTGAAG

TABLE 1
59/467

TGTGTGAGGCCACAACGTGCCATTATGCATATCANAAACAGAAATTTGTTGAGGATAAT
TTTGGATATTCAGCAGNGGCTGNGAACTGGATTTGAATTACCGGGATACATGCATGCTT
CTTGTT

Sequence 329

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAACTTTAATTAATGAGC
TAACGTCATATTTTTAAGTTTTTCAATTCOGTTTAAAAATCCTAATTCAGTAAAAAGA
TTACTTTATGAACAACAGCACCTTGAGATTGCGATTAAGTTAATAATCGCTTTCATTGTTT
CGCCAGTAGCTAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTTCAACATATTAG
TTTGGATTTCTAGAGTTGATTTACCATATTCTAAATCATACTCAAACTAATAACGCTCTC
CTGGTAATTTTTAGGTTTTCTTACCATAATAAAAAAGGGTTTTTTAAAAAGCTTGCAG
TTAGGGTGGTCCCAACAA

Sequence 330

CCGCGGTGGCGGCCCGCCCGGGCAGGTACACCTCTGATTCTCACTAGTTGAATGCAAGAAC
TTGAAAGGTTCAAGTAAGTGTTTTGAAAAATTTGACTTTCAAACTTTTGCCACTTGCT
ATCTGAAACTCAGGAATCAAAAAATACCGACAGGCACTGTTACTTTCAAAATCTTTCTA
TAAGTTGAGAATGGGACAGATTTGCAGAGCAAGGGAACTTGAACAGTTACTTCTAGTGG
TAGGAAATGAGGTGGCTAGGATATTACCCAGCTGGTGGGTGACTTGGGCAGTGTGTTCTT
GCTTTCAGTGGTTAGCCTTTAGCAAATCTGCTTTAGAGTGAGAGTAGAGGGCAGGCTGTT
GTATTACAGTGCTCTTGTTTTGTAAAATTTAATTCACCTCTACTGNTATTTTGTCTCCTT
GGGTAAAGNGNTATTTAATTTTTCT

Sequence 331

ATTATTGCNGAAAGAAGATTCACTCTCACCTGNTGAATAACGTGTTTCATAGGTAAAGGCT
ACAAAATACTAATTTGTTATTATTTTTAATAATAATTTTTGTTTTGCTGANAAAGTGGAT
TTACCACTTTTTATTTTTAATCCAAGGAGGAAAAATTTTCCAACCAAATCCTAAAA
ATTTTTACGTTCTAAACCAGTTCAAGAACATTGAGTAAACAGAAATATTCCATTTGTCA
AAGTTTTTCTTATCGGCTCAGATAATGAAAAATNNGGGGATA

Sequence 332

CCGCGGTGGCGGCCCGCCCGGCCAAGGTACGCGGGGGCAGAAGAGGAAGATTTCTGAAGAG
TGCAAGTGCCTGAACCGAGCCCTGCCGAACAGCTGAGAATTGCACTGCAACCATGAGGTA
AATATTTTCCCTTCGTATTCGGTAGTGCTGTTGAGTCATCTTGCCAATGCAAATCCTGA
GAAGCTATGTTCCCAAAGAGGGCCAGCTCCATTTAGTGTTTGTATAGCCTTACTATGC
CTCTACCTCTGGGGGTTGTAAATCTGTTNTACCCAATGGGNGGGTTTGTNNCCCTTCTG
AANCAAATTTTTCTGCTTNNACACTTGGGCAAAACNTTTCCTAAATTTATCCTCCCANA
ACTTTGCNCCNCCNTTGGGGGGAGGTTTGGGGTTTTCACTCCNGAANAAAAAGAGGGGC
CCCCACCNNAGGGNNTNNTTTNTTTTAAATTNNGGGCCNNGGGGNTTNNANTTAAAAAA
NNGGGNTTTTNGGGGGACNNTTTTTNTTTNACCCCCCCCCCTTTTTT

Sequence 333

GGCGATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACAACGTTGACCTTCCTTG
CCCAAGAATGAATGATTAATAAGTTGAAAAGCTGTGTTTGTAGATCGTTCAGGCCTTCGT
CTGCAACTATCAGGAAATATGGGTAACCTCTTCCAAGAACTTCCCCACTCTTTTGATA
AGCATCTCGAAAATGTTGTTGCAACATCAATGGTGGTATTTTCTGAAGATGAAGAATTAA
AGCAGTTCTCAAAGAAAGAAGTTCAGGGAAGTTGAAATACGCATACTCGGCATCCTTGAA
GAAAACATATGGTGAATTGTCCTCCTTTGCTAATAAGATCCACAAGATAGCCGTTCAACCA
GATAGAAAAAATGGGAGGTNCCTGCCCCAGGCTTTAAANTGANTNNCNCCNCAGCATCCC
CTTGGGGATNNGGTAANNNNCCNCCCCCNANCAAAAAAATTTTTCCCNCCNACC
NAATTNTGAAAAACCNNGNGGGGGTTTAAAAATTTGNGNTCNNAATTTNAAAAA
AN

Sequence 334

CCGGGCAGGTACTAGGAGATATTGATTCTAGTCAATTAGGCATTGTAGACTGTCATGACC
ACTTAATAAAAAATTATGGACCTGAAGCTCACGAGCATCCAGATTTTATTATGATGTCAA
AAGATGCTGCAATTAAGAAATGAATGAATATGTAGCAAAAGGAGGAAAAACTGTTGTTA

TABLE 1
60/467

CAATGGACCCTCCTAACGTTGGGCGTGATGTTTATCAAATGTTAGATATTGCAAAGAAAT
TAGAAGGAAAAAGCTAACATTATTATGGCAACTGGTTTTCATAAAGCTGCATTTTATGACA
AAGGTGCTTCTTGACTTGCTTTGGCTCCAACAGATAAAATTGNAAAAATGGTTGTAGCTG
AAATCGAAGAAGGAATGGATGAATATAACTACAGCGGACCAGTTGTAAAAAGATCTAAAT
CCAAAGCCGGAATTATTAAAGC

Sequence 335

CTCCCCGCGGTGGCGGCCGAGGTACCGCGGGGAAATGCAAAAAATCAANNCAGTNNANT
CNAATACATCACAGATGTTNAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATATTTT
ACCACTTTTAGCAAATGGGAGANGTGCTAAATTACACAATTAATCAAATGGCTGAGTTAG
CTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACCTA
CTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAAACCTAAAAAATTACCAGGAG
ACGTTNTTAGTTTTGAGTATGATTTAGAATATGGTAAATCAACTCTAGAAATCCAACTA
ATATGTTGAAAAAAGGC

Sequence 336

CTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAAATGCAA
AAAAATCAAATCAATTTAATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGG
ATTGTATTTAAAGATATTTCACTACTTTAGCAAATGGAGAAGTGCTAAATTACACAATT
AATCAAATGGCTGAGTTAGCTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGT
TTCTTGTTTGGGACACCTACTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAA
CCTAAAAAATTACCAGGAGACCGTTATTTAGGTTTTNGGGTNNAGATTTAAATTGNGG
AAANCCCCNNTTNTAGAAATCCAACTAATTNTGTTGNNAAGGGCCAAAAAGTNCCAA
TTATTGGTGATGTTTTAGCTACTGGCGGAACAATGAAAGCGATTATTAACCT

Sequence 337

CCGCGGTGGCGGCCGAGGTACCAATAATAGCAACCCTGTGATTTGTCCAAGTGCCCGGGA
GTGGAGGCCATCCTGACAACAGCTCTATGATTTTCTATGCCAATGACACAGGAGCCCAAC
AGTTTGAAAAGTGGTGGGATAAGTCCAGGACAGTCCCCTTTTATCTTGAGGGCTCCTCC
TCCCCTGCTCAATTTCAAGTCTCCTTCATTTTTTCAAATTTAATATCCTAGGCACAG
TGTCTGTCTTTATTTGATTTTCCTTGTCACCTTTAAGGCTGTTGCTTGGGATTTTATT
TGGAATTTATTGGTTTATACCAACAGAATTTTTGTACCTGCCCG

Sequence 338

CCGGGCAGGTACCTGGAAGACTTCTCCACCTCGGGGGCCTGGCTGCCTCACAGGTATGAA
GACAACCACCATAACTGCTACTCTTACGCACTCACGTTTCACTAAGTGCCTTCTGATGGCA
GAAGGTAGACAGCAACTGGACAAGGGTGAATTTACGGAGAAGTACCT

Sequence 339

ATAAACTGCGGGATCTCAATGGCTTCTATGATCGTATTGAGGCAGTAGTTCCACACTCT
GCCCGGTGCCAGCATGAAAAGAGAACAGGGAGAGTCAGCCTTTCACAGTCTTGTCAAATC
CCAATTACTCTGGTTGCAGATCACTGAAGCCTGCCTTGTTTCTCTCACAAGCTCTGCC
CGAGAGTCCAGCCCCGCGTACCTGCCCG

Sequence 340

GCGAATTGGAGCTCCCCGCGNGGCGGCCGAGGTACAAGATAGTCATNTCAGTAAAAGGT
CTATTATCTAACTTGCCAACTTGTTANNGAGAGCCCTAAGGAACTAAAATGCCATAA
TGCCNTGCACAGCTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCTCCCTCCAG
TTCCTCAGCAGGCTGGCTGAAGGCCCAAGGAGGAAGGAAATATAAGAACCAACAATAAA
AATAGCAATAGCAATAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCAC
CTNTCCCGGATCAGGCTTCCATTGCTCACGATGCTCACGCTGGGCAG

Sequence 341

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTTTTCTAGGACAA
TCAGGAAGTAATCTTAAAAAATAATTGAAGATGTTAAAAATACGTTAAAAATAAAAAA
CTTGTTTTAAACATAGATGCAGTAGAAATTGAAAAACCAGATTTAGATGCAAAATTATTA
GCTGAATCAATTGCAATTAATTAAGAAAAACCGTGGATCATACCGTATGGCACAAAAATTT
GCAATTCGTTTAGCACAAAAAGCCGGAGCTAAAGGTATTAAACTAAAGTTAGCGGTGCT

TABLE 1
61/467

TTAAATGGTGTTGATATGGCTAGATCAGAAGGATATTCTGAAGGTGAAATGAAATTACAC
ACACTTAGACAAGATGTTAGTTATGCAACAGCAACAGCAAGAACAACCTTATGGAGCACTT
GGAGTTAAAGTTTGAGTTTCATTAGGCGAAAGTATTTGCAAAGCAAAATCAAGCATATAA
TGAAGAAGAACCAACNCACAAAAAAGGGCCAAAAAGAGCAGCAAGAGTTAAAAAAGAA

Sequence 342

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCCAGGTGTTTACAC
GCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCC
TGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTG
GAGGGGCAGTTCCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTG
ACTGCATTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACC
TTGCAGTGACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGA

Sequence 343

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCATGAATGCCGTGCTCCAGGTGTTTAC
AGCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGC
CTGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCT
GGAGGGGCAGTTCCGGGAGGAGTTTGTGTCCATCGATCACCTNTTGCCAGATGACAAGN
GACTGCATTACACCACTCAGTATATGTGAGGGAGGGGATGTGCCTCTGGCCAC

Sequence 344

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAATAACTTTAATTAATGA
GCTAACGTCATATTTTTAAGTTTTTCAATTCCGTTTAAAAATCCTAATTCAAGTAAAAA
GATTACTTTATGAACAACAGCACCTTGAGATTGATTAAGTTAATAATCGCTTTCATTGT
TCCGCCAGTAGCTAAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTTCAACATAAT
TAAGTTTGGATTTCTAGAGNTTGATTTACCATATTTNTAAATCATTCTCAAAACTAATA
ACCGCCNTCCTGGGAAATTTTTTAGGGTTTTNTTACCCCTAAATAAAAAAGGGNTTNTT
TT

Sequence 345

CCGCGGTGGCGGCCGCCCGGGCACGGTACCACTTGAATTATCTATTGAAAGAACTACTAC
ATCGAGTTTTTGTCTTTTGCCATTTCAATAGCTTCTCTTGTTCATTATCCCAATTTT
TTCATTATCTGAGCCGATAAGAAAACTTTGACAAATGGAATATTTCTGTTTACTCAATG
TTCTTGAAGTGGTTTAGAACGTGAAAAATTTTAGGATTTGGTTTGGAAATAATTTTTCC
TCCTTGGATTAAAAAATAAAAAAGTGGTAAATCCACTTTCTCAGCAAAACAAAAATTATT
ATTAAAAATAATAACAAATTAGTATTTTGTAGCCTTTACCTATGAACACTTATTCATCAG
GTGAGAGTGAATCTTCTTTCTGCAATAATTTCTAATTGCCCGCGTCCTTGGCCGCTCTA
GAACTAGGTGGG

Sequence 346

CACTACTATAGGGNGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTAGGA
GATATTGATCCTAGTCAATTAGGCATTGTAGACTGTCATGACCACTTAATAAAAAATTAT
GGACCTGAAGCTCACGAGCATCCAGATTTTATTATGATGTCAAAGATGCTGCAATTTAA
GAAATGAATGAATATGTAGCAAAGGAGGAAAACTGTTGTTACAATGGACCCTCCTAAC
GTTGGGCGTGATGTTTATCAAATGTTAGATATTGCAAAGAAATTAGAAGGAAAAGCTAAC
ATTATTATGGCAACTGGTTTTATAAAGCTGCATTTTATGACAAAGGTGCTTCTTGACTT
GCTTTGGCTCCAACAGATAAAATTGTAAAAATGGTTGTAGCTGAAATCGAAGAAGGAATG

Sequence 347

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCGTAGAAGAAGAAGG
AATACCTAAAGAAACAGACATAGAAATCATCCAGAAATCCCGGAAACTCTAGAGCCACT
GTCCCTTCAGATGTGCTGAGGATCTCGGCAGTTCTGGAGGACACCACAGGCCAGCTCTC
TATTCTGAACACATCATGCCCGTTCAGTACCT

Sequence 348

TNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAATAACTTTAATTAATG
AGCTAACGTCATATTTTTAAGTTTTTCAATTCCGTTTAAAAATCCTAATTCAAGTAAAA

TABLE 1
62/467

AGATTACTTTATGAACAACAGCACCTTGAGATTCGATTAAGTTAATAATCGCTTTCATTG
TTCCGCCAGTAGCTAAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTCAACATAT
TAGTTTGGATTTCTAGAGTTGATTTACCATATTCTAAATCATACTCAAACTAATAACGT
CTCCTGGTAATTTTTAGGTTTTCTTACCATAATAAAGGTTTTTTAAAAAGCTGCAG
TAGGTGTCCCAAACAAGAAACCTCTTGGCTCTGGACCTATAATAACATCTGCATCTTTAG
CTAACTCAGCCCATTTGATTAATTGTGTAATTTAGCACTTCTCCATTTGCTAAAAGGTGG

Sequence 349

TCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTAAAACAGGT
GCTCCTGTTAAAATAGAAGATCTTGAGCTACTTCTAGAGATTTAAATTCTAAACGATCA
ATAGCAGCGTATCCTGTTCCGGCTTTAATAATTCCGGCTTTGGATTTAGATCTTTTTACA
ACTGGTCCGCTGTAGTTATATTCATCCATTCCTTCTTCGATTTAGCTACAACCATTTTT
ACAATTTTATCTGTTGGAGCCAAAGCAAGTCAAGAAGCACCTTTGTCATAAAATGCAGCT
TTATGAAAACCGATTGCCATAATAATGTTAGCTTTTCTTCTAATTTCTTTGCAATATCT
AACATTTGATAAACATCACGCCAACGTTAGGGAGGGTCCATTGTAACAACAGTTTTTCC
TCCTTTTGCTACATATTCATTCATTTCTTAATTGCAGCATCTTTTGACATCATAATAAA
ATCTGG

Sequence 350

TAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATTCTTCACTATCA
CTGTCCTGTAAATTTAGTAGCCTTGGCTGGAAACACTGTAGTCGACATGATCTGATATTG
CTTAATATTTAGAAAGAGACAGTCTATTTTACAATGTTTACTGGAAGCATTGGTCCGA
GAGAAATTAGAAGAAAAGTCTATAGTTTGGGAAGAGCTTGAAAACTATTCAGCATTTC
GGGTCTATCTGTTTCAGGACTGGGTCATGTTCTGTGGATATTCGGTCCATTATGACCCTT
CCACCTCTGCCAATTGCGCTCCTTGCAAATCCTATACATCTTCTTGGGACTGTAAGTGT
GTAAGGC

Sequence 351

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCTTGGTGACTGTA
ATTAACAACAATGTATTTTGAAGTCACTGAGTAAATTTTAAAGTGGTTTTTCCAAAAAAG
CACATAAGGTAAATGACCGTTAATTAGCTATATTGAGCCATTCCACAATGTATAGATATT
TCAAAACATGTTACACATGATAAATCCAGTTTTTCTACGTCATTTTTTAAATTATATTT
AATTTTTTTATTTTGAAGTTTTTTTACAGATCTTTTTTTTAGTATTATTACCTTCTGAT
ATATGTGTCATTATTGAAGAACCATACTTTTAAAGGTATTATTTTGTAAATTAAGGTATG
TCAACAGTAAAAATAACCAGTGGCCCAGGCCATNGGGGCTCATGCCTGTAAATNCCAGC
ACTTTTTTTCGGAGGCCCG

Sequence 352

CCGCGGTGGCGGCCGAGGTACCTGTGAAGACAGCTACACCTGGTTTCTCCCTCATGCCT
TGATCCCCAGAACTGCTACCTTACACGGCTGGAGCACTCCAAGCTGTGAATGTCATCT
TCAAACAACCTCAGCCAGAGTGTCAATTTCTGTGAGAGAACAAAGATTTGGGGCACTTTC
AAAATTAATGAAAGTTTACAAATGACCTTTTGAATTCATCTTCTGCTATATACTCCAAA
TATGCAAATGGAATTGAAATTCAACTTAAAAAAGCATATGAAAGAATTCAAGGTTTTGAG
GTCGGTTTCAGGTCACCCAATTCGAAATGGAAGNCATCGTTGCTGGGTATTGAAAGGTTT
GT

Sequence 353

CCTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTGTTTTATATTCT
TCAAATCCTATTGATGAAAACTTAAAGATGAATTAGAAAAATCTTATGTAATTAGACAA
AAACCAAAAAACAAAACTTATTTTAGAAAGACTTGGATAATGATTGATTATAAAAAAA
TGATTGACCATACTTTATTTAAACCAGAAGCTACATCTAAAGATATTTTAAACTTATTT
CACAAAGCTAAAGAACATGGATTTAGAGGAGTTTGCATTAACCTCTTCTGAGTTAAATTAG
CAAAAGAAAACTTGCAAATACAGATTTAGATATCGTTTCAGTAGTTGGCTTTCCATTAG
GTGCATCAAACACACAAACCAAGTTTTTGAAGCAAAATTAGCAGTTGAACATGGAGCTA
CTGAAATAGATATGGTTATAAATGTGGGTAAATTCAA

TABLE 1

63/467

Sequence 354

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTGCATGAAACCACACA
TACGGGCAAAAGCAGGAAGAGACTTTGCAGACATAAAAACCAGGTAAGTTTTGAGAGTCA
GGTGATTGCAAGATTTTTTTTTCTTTCATTGACACTTAGCTAATTTTGAGCCATATTTT
AAATGTGTGTCTTTTCAGTTACTTGAAACCTCTTCTCCACCTCCCATCCTTTCCAAACC
TCCTCCAAGCCAATTTTCCAGTTGGTTTAAAAGAAATCATTAGGGTGACCCCCACTCCCA
CTTCTGGAACCTCAGGCAGAGCTCCTGGGGTTCCTCC

Sequence 355

NNTTTTTTTTTTTTTTTTTTTTGCGTGGAATCCTTCACCTCTTGCTAAAGGAACAGTAA
TGTCATATCCTGTTAATCTTGCAGGAGGCGCTAATAAGAATTCAAATGCTTTCTCATTTT
TCTTGTAATAATTTCAAGTGAACGAAATGATTTAACAGCTTCGTGAACAACTAAAAGTC
TTCCAGTTTTTTAACAGAGTTAATAATTGTATCTGTATCTAAAGGAGAAATTGTTCTTA
AATCAATTAATTCTACAGAGTATTCTCCATTTAATTGTTTTAAAGCAGCTAGTGCTTCGT
GAACTTGTGCTCCATATGTTACTAATGTTAAATCAGAACCTTCTACTAATACATTTGCTT
TACCAATTTCAACTTCATAAATTCCTGCTGGAGCTTCTTGTTGAATGAACGATAAATTT
TCTTAGGTTCTAAGAAAATAACTGGATCTGGGTCGTTAATAGCTGCGATTAATAATCCTT
TTGTATCATAAGGAGTTGAAGGCATAACAACCTT

Sequence 356

AGGGCGAATTGGAGCTCCCCGCGGTGGGCGGCCGAGGTCTAACTTTAATTAATGAGCTA
ACGTCATATTTTTTAAGTTTTTCAATTCGTTTTAAAATCCTAATTCAGTAAAAAGATT
ACTTTATGAACAACAGCACCTTGAGATTGAGTTAAGTTAATAATCGCTTTCATTGTTCCG
CAGAGCTAAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTTCAACATATTAGTTTG
GATTTCTAGAGTTGATTTACCATATTCTAAATCATACTCAAACTAATAACGTCTCCTGG
TAATTTTTTAGGTTTTCTTACCATAATAAAAGGTTTTTTAAAAAGCTGCAGTAGGTGT
CCCAAACAAGAAACCTCTTGCGTCTGGACCTATAATAACATCTGCATCTTTAGCTAACTC
AGCCATTTGATTAATTGTGTAATTTAGCACTTCTCCATTTGCTAAAAGTGGTGAAATATC
TTTAAATACAATCCCTTCAATTGGGAAATCTTTAACATCTCTGATGTATTCTATTAAATT
GATTTGATTTTTTGCATTTCCCCGCGTACCTGCCCGGGCGGC

Sequence 357

GAATGGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGATAGTCATCTCAGTAAAAGGTCT
ATTATCTAACTTGCCAAACTTGTTTACTGAGAGCCCTAAGGAACTAAAAGTCCATAATG
CCGTGCACAGCTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTTCTCCCTTCCAGTT
CCTCAGCAGGCCTGGCTGAAGGCCAGGAGGGAAG

Sequence 358

AGGTACANGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTGCCAACTTGTTTACT
GAGAGCCCTAAGGAACTAAAAGTCCATAATGCCGTGCACAGCTTGAAAAGCAATTAAGA
GTAAGCAAGATTAGTTTTTCTCCCTTCCAGTTCTCAGCAGGCCTGGCTGAAGGCCAG
GAGGGGAAGGGAAATATAACGGAACCCAACAATTAANAAATAGGCAAATAGCCAATTAAA
GTAAGGAATGGNCATCCCATGGGAGGCANCAACCATTAAATTTCTTGGGAACCCACTNTNT
CCCNNGGATTGAGGGCTTCCATTTGCTTCACNGATGGCTTCACGTCTGGNGCAGCCCGCC
AACTCTTACTTTGCCAGGAAACCTCACCTCACTTTGCCAGGGTATTTCTNCCCCGGG
TCTTGGAANGAAAATGGGCTTCNTCCACCTGAAAAAGGGTTNGAATCCTTTCTTCCCAT
TACCCAGGCTTTCCNTTAAAGCCAAAAAGGCCAAATTCCTCCTTTTTTGGCTTTTCT

Sequence 359

CTAATTGATCCTGNTCACATTCAAGTAAATGGCATTGCATATTTATATGTTGCTNACAGC
TTATTGATTTAGGTAACCTATTGTGTCTTCTTCACTATCTGACCTGAAAAGCACTCTCTT
CTCTATGCACTCTTATATTCTGCCTTTCTGCCTGGAGTTTGAAATACATGTCTCTTTAGT
TTCTTTTGCACATGCTACATTGGGCTTTAGACCGGAGATAATACAGTGACTTTACCTCAC
AATCATATTCTGTCAACACAAATCTATGAATTTAGTTTATTTAAAATCAGAACAATTTT
CTACAAAATTTTTCTGGAAAATAGACTCCTAACAGACCTACCAGAATCATGCTTAAAGTG
CTCCCTTGACACTTATTCTATACTGAAGGATAAATTTTAAA

TABLE 1
64/467

Sequence 360

CCGCGGTGGCGGCCGAGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTG
CCAAACTTGTCTTACTGAGAGCCCTAAGGAACTAAACTGCCATAATGTCGTGCACAGCTT
GAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAGTTCCTCAGCAGGCCT
GGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAATAGCAAT
AAGAAGATGCCATCCCATGGAGCACACCATAATTCTGGAACC

Sequence 361

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTGTTTTATATT
CTTCAAATCCTATTGATGAAAACTTAAAGATGAATTAGAAAAATCTTATGTAATTAGAC
AAAAACCAAAAAACAAAACTTATTTAGAAAGACTTGGATAATGATTGATTATAAAAA
AATGATTGACCATACTTTATTAACCAGAGCTACATCTAAAGATATTTTAAACTTAT
TTCACAAGCTAAAGAACATGGATTTAGAGGAGTTTGCATTAACCTCTTCTTGAGTTAAATT
AGCAAAAGAAAACTTGCAATACAGATTTAGATATCGTTTCAGTAGTTGGCTTTCCATT
AGGTGCATCAACACACAAACCAAGGTTTTGAAGCAAAATTAGCAGTTGAACNTGGAGC
TACTGAAATAGATNATGGGTATAAATGGTGGGTAAATTTCAA

Sequence 362

CCGCGGTGGCGGCCGCCCGGGCATGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCT
TGGTAGGCCATTACCATACCACTAACTAATGTTCCGCACCCCCATTTTAAGTGAAGCT
GTGAAGCTCCTTTCTATTACTCATCATGCGATAAATACTATATCCGGTATTAGCTATTG
TTCCAATAGTTATCCAGTCTTAAAGGTAGGTTAGGTACCT

Sequence 363

CACTACTATAGGGNTNATTGGAGCTCNCCGCGGTGGCGGCCGTGCTGTTGCTTGGCCGCG
CGCCAGGCTGGCCAGAGGTGCTGTTCCACTGGGGCGTGGCCGTGATGGTGTGCGCCGATC
GACGTTCTGTTTTAATGAAAGGATGGACATGCAACTGACACTCGCACTCTTGGCAAT
CATGCCAATGCCCGCTCCAAAGCGGGTATTTTTTGCCTGCGCTAAACGTGGCCATGGC
GGAATTCGGTATCAACACGTCGGCGCGCCAGGCCGCGTGGCTGGCCACCATCGGTGTCGA
GTCCGGTAGCCTGCAGCGGGTAGAGGAAACTTGAACACCGCGCGGATCGCCTNCTCGT
TATTTTCGGAAATACTTCACGCCGGCGTTGGCCGCAGCTTATTGCCGGCAAGCCGGAAA
TGATCGNCAACCGTGTTACGCCAACCCGCATGGGGGAAACG

Sequence 364

AGGTACTAACTTTAATTAATGAGCTAACGTCAATTTTTTAAGTTTTCAATTCGGTTT
AAAAATCCTAATTCAAGTAAAAAGATTACTTTATGAACAACAGCACCTTGAGATTGATT
AAGTTAATAATCGTTTCATTGTTCCGCCAGTAGCTAAAACATCATCAATAATTGCTACTTT
TTGGCCTTTTTCAACATATTAGTTTGGATTTCTAGAGTTGATTTACCATAATTCTAAATC
ATACTCAAACTAATAACGTCTCCTGGTAATTTTTTAGTTTTCTTACCATAATAAAAGG
TTTTTTAAAAAGCTGCAGTAGGTGTCCCAACAAGAAACCTCTTGCGTCTGGACCTAT
AATAACATCTGCATCTTAGCTAACTCAGCCATTTGGATTAATTGTGTAAATTTAAGCAC
TTCTCCATTTGCTAAAAGTGGTGAAATATCTTTAAATACAATCCCCTTCAATTGGGGAAA
TCTTTAAACATCTCNGGATGGTATTCTATTAATAATTGAATTGAATTTTTTTGGC

Sequence 365

CCGCGGTGGCGGCCCGAGGTACCAAAATAAAGGGTATTTGCTACCTTTAATACTTGCCAG
TTCAGGTTGGAGGCACAGGCAGCAGCAAGAATGGAAAGAAATGTTCTTACAACATTTTCA
CAGGAAATGTCCAGTTAATTTTGAATGAAATGCAAAAGCTGAATATTCAGTTTATTCA
ATGATTTTGTGAATCTGAATTTTTTTGATTGATGGGGATTCACTTATCACATGTA
TCTGTGAGATATCATTTAAGCCTGGGCAGAACCTCCATTTCTTCTATCTGGTTGAACGCT
ATCTTGTGGATCTTATTAGCAAAGGAGGACAATTACCATAGTTTTCTTCAAGGATGCCG
AGTATGCNTATTCAACTTCCCTGGACTTCTTTCTTTGAGAACTGCTTTAATTTCTCATCT
NCAGAAAGAATACCCCATTTGATGTTTGAACAACATTTTCGAGATGCTTATCAAAAAGAG
TGGGGAAAGTTTCTTTGGAAGANGAGTTACCCCATATTTNCTGATTGTTGGCAGACGAAA
NGCCTTGAACGATCTACAAAACNCAGCTTTTTAACTTTTTAAATCNTTCAATTCCTTG
GGGCAAAGGGAANGNTNAACNTTTGGTACCTTGCCCGGG

TABLE 1
65/467

Sequence 366

CCGCGGTGGCGGCCCGCCCGGGCAGGTACGCGGGGAAATGCAAAAAAATCAAATCAATTT
AATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATAT
TTCACCACTTTTAGCAAATGGAGAAGTGCTAAATTCACAATAATCAAATGGCTGAGTTAG
CTAAAGATGCAGATGTTATTATAGGTCCAGACCCAAGAGGTTTCTTGTTTGGGACACCTA
CTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAACCTAA

Sequence 367

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAAATACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCC

Sequence 368

ACCGCGGTGGCGGCCGAGGTACGGCCACACTGGGACTGAGATACGGCCCAGACTCCTACG
GGAGGCAGCAGTAAGGAATTTTCCACAATGAGCGAAAGCTTGATGGAGCGACACAGNGTG
CAGGATGAAGTTNTTCGGAATGTAAACTGCTGTTATAAGGGAAAAAANAAAAAAAAA
AAAAAAAGGTNCCTGCCCC

Sequence 369

GGCGGCCGAGGNACAATATAGNCATCGCNTTAAACNGCCNANTNTTAANCNCGCCAACT
TGTTACTGAGAGCCCTAAGGAACTAAAACCGCCATAATGCCGGGCACAGCTTGAAAAGC
AATTAGAGGAAGCAAGANNAGNNNTTCTCCCTTCCAGNNCCTCAGCAGGCCTGGCTGAA
GGCCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAATAGCAATAAGAAGA
ATGCCATCCCANGGAGCACACCAAAATTCNGGAACCAACCNCTCCCGGANCAGGCNTCCAT
TGNTCACGAAGCTCACGCNNGGCAGNCCGCAACTTTACTTTGNAGNAACCTCCCCACTTG
GCCAAGGGAATTCNCCCCCGGGCCTGGAAGAAAAGGGNTCTCCACCCGGAAGGGGCGN
ACCTTTTCCCAAAACCAGCCTTTCCTTAAAGCNAAAAGCAAACCCNCTCTTTTGGGTTTC
NCAAAGGGGGCNGNACAAAAGGGAAGGGTTTTGGGGCNGGGGGGGGAAACAAAANCCCC
NCATTNGGAAGNTTGCCCCCGGCCGAGGGGAAGGGGAAAAGGTTGGNCCCCGGTTGGGGG
GGG

Sequence 370

ATTGTTGCTCNCCGCGGTGGCGGCCCGCCCGGGCAGGTACANGGAACTGCCAAAGGCAACA
GAAATTCCTTTCTCCCTATGTCCAGCCTACCCCACTTTACCGAGGCCAACAGCCGCCTC
AGAAACCAGATTGAGGAGCTAACATGCCCCAGGTCTCACGAGGATCAGAGACTCCAGAGG
CCAGGGAAGGAGANNAAGGTAGNCAAGCGGGGGTGGTCTCAAATCTGGTTGNGCTCGAGC
TATGCAAATGCCTCTCATGGAGATGCGAGGACCTATCTATTATGATGACCAGGGCCACAT
CCGGAGGGGGCAACAGACTTTCATNTATCAAGCCCTT

Sequence 371

AGGTACTATTGACTAAAGTCAGTTGGGGGAGAGAGAGGCGGAAGTATATTACTTTTATGC
TTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAACATTAGATCAGTGGTTCTCA
GAGTATTGATATCTGGGAGTCCAGCAACAGTCTGAGGAGGTTTCATGAGTTCAGAATATT
TTGATAATAACACTAAGATGGTATTTACTCTTCTAACTGGGTAGATATTTGCACTGGT

Sequence 372

CCGGGCAGGTACCGGGTCTAGGGAAGATGCAGAACACTTCAGCCTGGCAGAAGGCTCTAA
AGATCGTCAACCTTTCTCTGTTTCAATTTTAAATTTTAAAAATATGCTAACTTAGCTGA
AAATCTCATGAAACCAGGCTCCTCATCAGACTTGAAAGTCAAACCGGTTTCTCAACAAC
TTCTCTTTATGGTTCTGTATGGCTCCACAGAAAACCAGAAAAACATTTGGGGCAAGAAGC
TATGACTCTGTGAGGCCACATGGGAGCAGGCAGTCAATTATTACACTAAGGAACACCCAG
TTAGCATGAAGTATCCCATCACCTCGGTATTAAGCCCTGCATGCATTAGCTATTACCT

Sequence 373

ACTTTTTTTTTTTTTTGTCTCAATAGAAGTATGGAATAATTCCAGGTAATTTAAAGCATA
TTTTTCAATTGGTGTAAGCTGCTCCATGAAGTCAGCTAGCTCCTCTAATTGGGATGGTTC
TTCATCACACGGCATGTTCTCAGAGTCTGATGACAGAGCATCAGTGTGTGGTCCCAGCAC

CCCCTCCTGTGCGGACTTCTGGGCATCCTCCTCCAGATACTCAATACTCTTGAGGGCCTG
AGGAAAGTCTCTATGAAAGGTCTTGCAATTTTGGGTGCAATGGTTTCOGTGACAGAAGGT
TCCTGAGAAAGCACCAAACTCCTCAGCTTTGACCGGAAGCCAGCATCACGGACGCGT
GGGTGGAAGCTTGACCT

CCGGGCAGGTACCGCTACTGAAATTATTAACATACACTACAGATCAATTATATAANTAT
GTTAATATCTTTAGAAATCAAGAGTTGCAGCATAAGAGAAAGGGATACAAAAACAAAACA
AGCAAAGAAGTTACATAAAAAACGTAACGTTGTATTGAAAAACCAGTATGAACTTATGAT
TTAGTTTTCTTCTAAAAACGGACGCGTGGGTGGAAGCTTGACCT

NGCGNTGCGCTCACCTGCCCNCTTTCCANTCGAGGNAACCTGGTCGTGCNAGGGTGCNA
 NTAATGAATTCGNCCAAACNCCNCCGNGAGNAGGCGGTTTTGCGTNATTGGGGCCGCT
 ATTCNCNTTTTTCTCGCTCACCTGACTTCGCTGCCGCTCGGTCGNTCGGCTTGCCGCGCGA
 AGCCGGGTAAATCAAGCCTCCACTCAAAAAGGGCCGGGTAATTAACGGGTTTTNTCCAC
 CAANGAAATTTCAAGGGGGGGATTA AACNCNCAAGGGAAAAANGAAACATTGTNNGANNC
 AAANAAAGGGCCCNNNCAAAAANNGGGCCCGANGNGAACNCNCCGTAAAAAAAAG

[illegible]

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGTGATG
CTGGCTTCCCGGTCAAAGCTGAGGATTTGTGGTGCTTCTCAGGAACCTTCTGTCACGG
AAACCATTGCACCCAAAATTGCAAGACCTTTCATAGAGACTTTCCTCAGGCCCTCAAGAG
TATTGAGTATCTGGAGGAGGATGCCAGAAGTCCGCACAGGAGGGGGTGCTGGGACCACA
CACTGATGCTCTGTCATCAGACTCTGAGAAATGCGGTGTGATGAAGAACCATCCCAATT
AGAGGAGCTAGCTGACTTCATGGAGCAGCTTACACCAATTGAAAAATATGCTTTAAATTA
CCTGGAAATATTNCATACTTTNTATTTGNGGCNAAAAAAAAA

[illegible]

Sequence 379

TABLE 1

67/467

GAATTGNAGCTCCCCGCGGTGGCGGCCNCCGGNCAGGTGGAAAGGTGGGTGGGGAGAGG
GAGGCTTATTTGTTGCTGCAGTGTAAGTAAACCTAATTCATATGACTCAAACCTAA
GGTATATTTGGTTAGATCTAGGTGAGTTCTACTTTAGAGGAAATCCTGGTAACTGTTGTT
TGTTTGTAAGTTATAGCTGTAATTAATTTTCCCTGTATTCAAAGCCCCCAAACCTGCAT
TCAGATACTATGCATTTAGACTTCCTTAGGCAAAGTCAAGGCAACAAGCTGATGATTCTA
AGCTATTATTCAAGGAGTATCTACCATCATAAAGGTGGTTTAAAGTCATATAGGATAATAT
CAATCAATAACAGGGAGATGGCAAAAATTTTGGGNAAANCCCAATATTANCTTGGG
TTTATGACCCCCNAATCTCACACTTTGGGNCNTATGGGAAAGGCTTTTTTAAAGACCC
GGGAGTTCAAGACCNGCCCTGGGCAACATTAACCAACCTCCTTTNNNCCAAANCTTTAA
AAAA

Sequence 380

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGCAGGTTACAAGTCGACCCAC
GCGTCCGCTTCAGAATATCCAATTCATGTGAACTACAGGAAATTATAGTTTAGATATTTT
TAAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCTTTA
CCATATCATTAAATAAAGTCAAATTTTAAATTTGTGCCCAATTTGGCTGGGTGTGGTGGC
TCATTCCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 381

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCC
GCATTTATTAAGGCTTGATATGTTCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAA
TTGATCTTAACCACAAGGCTGAGAAGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGT
ATTAAATCCTCCAGAGAAGCCTGTAGTGTGGGATGCAAACCTATTTTAAAGTGTGACCATGA
GGTGTTTTTTTGTGGACCATTTTAAAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGA
GTTAGGTAGAATGGGTTGGTTATCTGCACTCTAGCGGCCCTTCATAGCTATTGTATTCTG
GATTTCAATTCGGCACTTTATGTATTAGCTAAAAATTTTCATGACCAGATCTTTTGAAGTA
TACAAAGTAAATCTTCAAGGTGGATAGTTTATCCAAGTGTAATGTGTTGCACTAGGTC
AGCTTGGAATTTTGAAGTACTTTTGGCATCATTGCATACATCTGGTTTGTGTACCTGCC
CGGGCCGCGCGCTCTAGAACNGTGGATCCCC

Sequence 382

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCA
GTTGGGGGAGAGAGAGGCGGAAGTATATTACTTTTATGCTTGGTTATACTAGAGAACAAA
TNGAAACTGACTAAAGAAACATTAGATCAGTGGTTCTCAGAGTATTGATATCTGGGAGTC
CCAGCAACAGTCTGAGGAGGTTTCATGAGTTTCAAGTATTTTGAATAAATAAAGTGG
TATTTACTCTTCAACTGGGTAGATATTTGCACTGGT

Sequence 383

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATCTGCATATACACCAT
TAATTTTACATCGTTGAGGTAGCCAAAACCTGCTCGTAAGTGGGCTTTTATTAAATAATAT
AATGTTCTTAATAGAGGAAAAAGGAATTGAATACATTTTTAAAAACAAAATAACAAAACC
AATCCATTGTCCACAAAAAGAAATCAGTGGAGACAAAAGCAGTTTAATTTGCTGGATTCT
TTTTGTGGCTTATTTTTTGTAGTATTATTTACAAAATGTTAGACTAATTTTTAAGCAATAT
TAATAATAAGCAACATACAACCTCCAAGAATAATATAATAAATAAATAAAGTGGGACGCGT
GGTTCGAAGCTTGCTCGNNGGGGGCGGNCCTTCNAGGCCCNCCGGGCAGGTACCCA
GTNATCACATAAATTCTGCAATCATNTGGNTATTNAGCTTNACNTGNTTTTTTTATTGN
NGAANTTGTGTTGTATTGAG

Sequence 384

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGCAGGTTACAAGTCGACC
CACGCGTCCGCTTCAGAATATCCAATTCATGTGAACTACAGGAAATTATAGTTTAGATAT
TTTTAAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCT
TTACCATATCATTAAATAAAGTCAAATTTTAAATTTGTGCCCAATTTGGCTGGGTGTGGT
GGCTCATTCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 385

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT

TABLE 1
68/467

TTAAGAAATAGGGTCTCACTCTGTCCCCAGGCTGGAGCCATTATAGCTCACTACAGCTT
CTGACTCCTAGGCTCAAGGGATCCTGCCACCTCAGCCTCCCTGGTAGCTGGGACTATAGG
CAGGAGATCGCTTGAACCGGGAGGCGGAGGTTGCTGTAAGCTGAGATCGCGCCATTGCTT
TCCAGCCTGGGTGCCAGAGCAAACTCTGTCTCAAAAAAAAAAAAAAAAAATAATAATAAAA
TAAATAAAAAGGCAAGGAATATAGGGAAAAGTCAAAGAGATGGACTGTGAGAAGACTGG
GAAAGCCAGAAGAATGGNGGAAAATGTAGCATGGAGTAAGACAATAAAAAATATAAGAGGA
CTCATTTGCGACGCGTGGGTCGACTCACCTCGGCCGCTCTAGAACTAGTG

Sequence 386

TTAGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCAGGTTACAAGCTTCGACC
CACGCGTCCGGGAAATTTTAATTAATAATAGGTGAACATTTTAAATGACCTAATACATAT
TTAGTCCACATTGAACTTTGGCATTGTTGTCATTGCCATTAAATTTTGATGGCATTAAA
ATTTGATGCCATTAAATTTTGATCAGTAGGTAGCATTGTTTTCTTAGCTACAATTGTTT
TTTTTAATTATAAGTATTAATAATTCATGAAGATGATTCTTTTGTAACAGTTTTGCA
TAAAAGTAAGTCTCATTTTAAAGCAACTACCACTTACTGGCCACCT

Sequence 387

AGGTCTTCGACCCACGCGTCCGATGGTTTTTGCAAAATTGAAAATGCATCGATATTACA
GTTAATTTTTTCAGTGTGTATGTGGTATTAGGCTTAGAACTATAACACAGGAAGTTTTTA
GAGTATGTCCACTCTGGTTTACTCCTTTGTAAGTATTAATACCTGATAATTTACATCCTA
CAGCCCTGCCTTTTTTTTTTTTCAAGTTTGTCCAGCAAGTCTTGGCCCTTTGCATT
TTCTTAATACATTTTAGTACCTGCCCC

Sequence 388

CCGCGGTGGCGGCCGAGGTACAAAGAACAAGGGAAGCTAAGGAAGAAAAGATAGTCAAT
AAAAGATGTCTCATCTGGGCTTAGTGGCTCATGCCTGTAATCCCAACACTTTGGGAGGCT
GAGGCTCGAGGACTGCTTGAGTCCAGGAATTTGGGCAAGTAGGAAATTACTGAACAGCTG
CTATCACAGACAAATGCCTAACATTGTGAAGTGCTACACAGGGGAAGGAGACCCACGCTA
AGAGGAGAGCATGCACCCAGACACAGAAGTCAAGGACACAGTTCAAAACACACATACAA
GAGGCTTAGGCACCTGTGGGCGTGTGTGTGCTCACAGCCAGCAAAATGAAAAAATCCC
AGCTCTGAAGGAGAGGCAAGTGCATGGCTTCCGTACCTGCCCC

Sequence 389

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGA
TGGTTTTTGCAAAATGAAAATGCATCGATATTACAGTTAATTTTTTCAGTGNGTATGT
GGTATTAGGCTTAGAACTATAACACAGGAAGTTTTAGAGTATGTCCACTCTGGTTTACT
CCTTTGTAAGTATTAATACCTGATAATTTACATCCTACAGCCCTGCCTTTTTTTTTTTT
TCAAGTTTGTCCAGCANGTCTTGGCCCTTTGCATTTTCTTAATACATTTTAGTACCTGC
CCGGCGGCCGCGCCGCGGCGAGGTACNACTACCTCTTAAAGTTGTCCTTATTGGAGA
TTCTGGTGTGGAAANAGNAATCTCCTGTCTCGATTACTANGAAATGAGTTTAACTGG
AAAGCAAGAGCACCATTGGAGTAGAGTTTGCAACANNANGCATCCAGGTTGATGGAAAA

Sequence 390

TCCCCGNGGTGGCGGCCGAGGTACTATTGACTAAAGTCAAGTTGGGGGAGAGAGAGGCGG
AAGTATATTACTTTTNTGCTTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAAC
ATTNNATCATTGGTTCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTNTGAGGAGG
TTCATGAGTTCAGAATATTTTGATAAATACTAAGATGGTATTTACTCTTCTAACTGGG
TAGATATTTGCACTGGT

Sequence 391

AGGGCGAATTGGAGCTNNCCGCGGTGGCGGCCGAGGTCTTCNACCCACGCGTCCGATGGT
TTTTGCAAAATGAAAATGCATCGATATTACAGTTAATTTTTTCAGTGTGTATGTGGTA
TTAGGCTTAGAACTATAACACAGGAAGTTTTAGAGTATGTCCACTCTGGTTTACTCCTT
TGTAAGTATTAATACCTGATAATTTACATCCTACAGCCCTGCCTTTTTTTTTTTTTTCA
AGTTTGTCCANCAAGTCTTGGCCCTTTGCATTTTCTTAATACATTTTAGTACCTGCCCC

TABLE 1
69/467

Sequence 392

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGCTT
CACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCCTCACGAGT
TTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGAAGTCCAATGCCATT
CTGATTCTTGCAACTTACAAGTAGTCTTTTTTGTCTAGACGCTTTCAGGACCTTCTTTT
TTCTCAGTCAGTGTATCCAAACCTTCACAGTGATATCTTTGGGTACCT

Sequence 393

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCATTTATTAAGGCTTGATATGT
TCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATCTTAACCACAAGGCTGAGA
AGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTAAATCCTCCAGAGAAGCCTGT
AGTGTGGGATGCAAACTATTTTAAGTGTGACCATGAGGTGTTTTTTGTGGACCATTTTA
AAGCCAATGATAG

Sequence 394

GGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTCTTCTACCCACGCGTCC
GCACATTTTGATGGTCAGTCAATAACTTAAGCAGTTACCAAATACTAGGTATCCAAGGA
GCGAGAGGTGGGCGAGCATAAGAAACACATTTCTCATGGCACAGCTCTGCCAAAGCCCTG
CAGAATCATTACACATAGGTCTTTGGTTAGTAGCCCTGGCACAGAATTCTGATCTTAA
ACAAATATTGTCTATAATCAAGTAGAGCAATGCAATTAAGCAAGGTTTGG
GGGCCATGCTGAAATCCCAGCCTTGCTATTTGCTGGCTGTGTGACCGTGGTTCCTTGGTC
TCATTATGCTTTGGTTCCCGTATCTATAAACGGACGTAATAATGTCTCCCTCTCATTAT
TGTGAAGTCGAAATGATGTCTGTAAAGTGCCCAACACAGTACTAAAGGGCTATT

Sequence 395

CCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGTTTAAGTAACAT
TCAGATTTGTGTGTGTGGAGAGGTTGTAGGGAACAGAATTGTAGGAAGGTGCTCACACCT
GTTTTGTTTGTGTTTATGTATATATGGTGGGTAGAAAATAAGGATTAATGAATGCA
GTAAGGTATTTGAGCACTCTTGTTTATCTTGTGTAGGTGCCAACCAATATTTTTATAGA
GATGTGGTTAAGCCTCTTGGCATGTTCAACTGTGTACCT

Sequence 396

CCGGGCAGGTCTCTTGTCTAGTATACTCAAGGCAGCCTAGTAAATTATTATTTATCTATA
CAATACTGGAAAACTTGTAGACAAAACATGACTTGAATTGCTAAAAAAAAAAAAAAAAA
NGANGGAGAATGAAACTTCCGGACGCNTGGGTGCAAGCTTGACCT

Sequence 397

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCGCGCGTCCGCATTT
ATTAAGGCTTGATATGTTCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATC
TTAACCACAAGGCTGAGAAGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTTAA
TCCTCCAGAGAAGCCTGTAGTGTGGGATGCAAACTATTTAAGTGTGACCATGAGGTGTT
TTTTTGTGGACCATTTTAAAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGTTAGG
TAGAATGGGTTGGTTATCTGCACTCTAGCGGCCCTTCATAGCTATTGTATTCTGGATTTC
AATTCGGCACTTTATGTATTAGCTAAAAATTTCTAGACCAGATCTTTGAAGTATACAAA
GTAAATCTTCAAGGTGATAGTTTATCCAAGTGTAATGTGTTGCACTAGGTGAGCTTGA
ATTTGAGAT

Sequence 398

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCGCATGTTGGCTGGGCTGGT
CTCGAACTCCTGACCTCAAGTGATCTGTCTGGCCTCCCAAAGTGTGGGATTACAGGCT
ACTAAAGCTTTTTATTTATTTCTGTGGATTTGAGTTATTGTGTAGTGTCAATTTATTTTC
ATATGAAGGATTCCTTTTGGTATTTTTGAAGAACTCTTTATCAGAATTAATTATCTCA
CTTTGAAAATTTTAAACAATCTAGAAACGCTTTTTTGTTTTTGAAGAATAGTTTTCT
GGATGTAAATTTTTGGTTAATTTGTTTTCTTTGAACACTGAATATTTAATCTTATGC
CTTCTGGCTTTCAGTACCTGCCCG

Sequence 399

CCGCGGTGGCGGCCGAGGTAGCTTGAGTCGACCCACGCGTCCGTTTCAGATCCGTTTCAGA

TABLE 1

70/467

AACGTGAGTCTCTAGCTCAGGAGATTTCCACAACCTGTCCTTAGTAACCTGATCTTATTCT
CATGTTTAACTTTGGCAGTGGGAAGTTCTTCCTGGTATCCTGCCTAATTTACTGGAGTTG
GCATTAATGCCATTTCCCCCTAAGGCGTGGCTCTTGGACCAGTATCACCTGAGAATTTGA
TAGACATAGACCCAGAGTTACTGAGGCAGGTGCTCTGTTTTGGGGACCAGCAATCGGTGC
TTTAGCAAGTTCTTTGGGTGATAGGGTTTGGAACTACTGCTCTAAAGCATCATCTGTTT
TGACTTTGCCATGCACAATCTGAACTCACTCCCGTGAGGCCCTGCTCCTGATACTTTAAA
TCGTCTGTCTCTTTTTCTGCCTCTCTGTGGAG

Sequence 400

CCGGGCAGGTACAGGCACCTATAGAATTTAAAGGGGAGATTTCTTTATTTGTATTCAAT
GTATTAATAAGATTTTTAAACATATTTTGGAGAAATTGCTAATTAGTGTATAATCCTGA
TGCCAATTCTAAAAACCTTTTTTTTTTTTGTAGAGACAGGGTCTTATTCTGTCACCCGG
GCTGGAGTGCTCTGGTATGATCCTAGTTCACCTGCAACCTCAAATACCTGGTCTCAAGCAA
TCCTCCCACTCAGCCTCCCAGTAGCTGTCTCTATAAGCATGCACCACCACACCTGGCT
AACCTTCTTATTATTTTGGTAGAGACAGTCTCACTATGTTGCCAGGCTGGTCTTGAAC
TCCTAACCTCAAGCAAACATCCCTCCTCGTGCTCCCAAAATGCTNGGATTACCAGCATT
AGCCTTACAAGCATAAGCTACCATGGACTGGCTTCNAAAAAATATTTGGTTTAAAAATC

Sequence 401

CCGCGGTGGCGGCCGCCGGGCAGGTGGAAAGGTGGGTGGGGAGAGGGAGGCTTATTTGT
TGCTGCAGTGTAACCTAAGTGAAACCTAATNNATATGACTCAAACCTAAGGTATATTTGGTT
AGATCTAGGTGAGTTCTACTTTAGAGGAAATCCTGGNAACTGTTGTTTGTGTTGAAGTTA
TAGCTGTAATTAATTTCCCTGTATTCAAAGCCCCCAAACCTGCATTGAGATACTATGC
ATTTAGACTTCCTTAGGCAAAGTCAAGGCAACAAGCTGATGATTCTAAGCTATTATTCAA
GGAGTATCTACCATCATAAAGGTGGTTTAGTCATATAGATAATATCAATCAATAATACAG
GAGATGGCAAAAATTTTTGTGAAGAGCCAGATAGTANCTGAGTATGATGACCCCTAATC
TCAGCACTTTGGGAGGCTGATGGGAGAGGGTCATTTAAGACCAGGAGTTCAAAGACCAGC
CTGGGCAACATTAAAAACTCCATTTCTACCAAAAACCTTTAAAAAAATTAGC

Sequence 402

GCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGGGAGGACCTAGGCAACGGCC
TGAGACTCGAGACTCTATGTTGAAGATGCCTGGACTAACCTACTGAAGATACGTGGTTT
TACCAACAGCCAGCACCAATAGGAAGATATGAATGAAGCCATCTGAGACCAGCCATCTGG
CAGCCAAACTGCCAACTGACTGCAAATGCATGAATGATCCCACTGACACCAGCTAGAGCA
CAAATGAGTTGCCTCCACTGAGCCCAGCCCAAATGTTATCCTATAAAATCATAAAAACA
TAAACAGTTGTTTAAAGTCAAAAAAAAAAAAAAAAAAAGTGCGACCTGCCCG

Sequence 403

TACTATAGGGCGAATNGNAGCTNCCCGCGGTGGCGGNCGAGGTATTCAACAAGGGCCCTG
AGAGAGGGACAGGCAGCCCCTGTGAATCTTGCTGTTGAGCAGAGACAGGAGTCAGCACGT
GTGAGGGCAGCAGGGAAGTCTTCCTGGAGGAGTGAGACCTGGCGATGAGGAGGCACGGCA
GGGAGGTGGAACAGGCAGGAGAGACTCTTCAGGAATTGAGGAGATAGAATAGAGGACACT
AAAGCCTTAGAGAGGCCAGGGGTGGTGGCTTGGCAGGATCATCGCTTGAGGCTAGGAGTT
TAAAGCAGCCTGGGCAACATAGCGAGACCCCATCTCTAAACACAAAAAATAAAACCTG
CCCG

Sequence 404

CCGCGGTGGCGGCCGAGGTCAAAGCTTCGACCCACGCGTCCGTGATGCTGGCTTCCCGGT
CAAAGCTGAGGAGTTTGTGGTGCTTTCTCAGGNACCTTCTGTCACGGAAACCATTGCACC
CAAAATTGCAAGACCTTTATAGAGACTTTCTCAGGCCCTCAAGAGTATTGAGTATCTG
GAGGAGGATGCCAGAAGTCCGCACAGGAGGGGGTGTGGGACCACACACTGATGCTCTG
TCATCAGACTCTGAGAACATGCCGTGTGATGAAGAACCATCCCAATTAGAGGAGCTAGCT
GACTTCATGGAGCAGCTTACACCAATTGAAAAATATGCTTTAAATTACCTGGAATTATTC
CATACTTCTATTGAGCAAAAAAAAAAAAAAAAAAAGTGCGGCCGCTCTAGAACTAGTG

Sequence 405

TABLE 1

71/467

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCC
GGAAGTTTTCTTCTCCCTCTTTTTTTTTTTTTTTTTTTAGCAATTCAAGNCATGTTTT
TGTCTACAAGTTTTCCAGTATTGTATAGATAAATAATAATTTACTAGGCTGCCTTGAGT
ATACTAGACAAGAGACCTGCCCCG

Sequence 406

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTAC
CTGAAAATGCTTATTCTAGCTTCACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATT
AGACTTAATTTTCTCACGAGTTTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAA
AGCTGAGAAGTCCAATGCCATTCTGATTCTTGCAACTTACAAGTAGTCTTTTTTGTCTA
GACGCTTTCAGGACCTTCTTTTTTCTCAGTCAGTGTATCCAAACCTTCACAGTGATATC
TTTTGGGTACCT

Sequence 407

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTCTCTTATATTGAAGTAAAATTTA
AAATTTAATACTTTTTATTTTTTAAAAGCATGTATGGCATCATTTCACTCTTATTAAAT
CTCTCTGCATCCATTCACCCATCCTTCTTTTTGTGTGTGTGTAGTGGTCTCTGTGAGA
GGGTTCAATTAATGTCAATCCTGATCATTTCTTCTCAAGAGATGTCAGTAGATTTGTTTT
TTTTGCTTTGGACTTTTATGAATTGATTGAATTTTTATGCCAATTATTTTTAAAGTATTA
CATAGAAGAACAATGGACAGAAAAATTTAAATGCAATCAAATCTTGTTGATTTTGAAGT
ATAGGAAATAATCTTTTTTTATTATACTTTAAGTTTTAGGGTACCTGCCCGGGCGGCCG
CTCTAGAACTAG

Sequence 408

CCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCAGTTGGGGGAGAGAGAGGCGGAAGT
ATATTACTTTTATGCTTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAACATTA
GATCAGTGGTTCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTCA
TGAGTTCAGAATATTTTGATAATAACACTAAGATGGTATTTACTCTTCTAACTGGGTAGA
TATTTGCACTGGT

Sequence 409

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTTACAAGTCGACCCAC
GCGTCCGCTTCAGAATATCCAATTCATGTGAACTACAGGAAATTATAGTTTAGATATTTT
TAAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCTTTA
CCATATCATTAAATAAAGTCAAATTTTAAATTTGTGCCAATTTGGCTGGGTGTGGTGGC
TCATTCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 410

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGACCAGTGCAAATATCTACCCAGT
TAGAAGAGTAAATACCATCTTAGTGTTATTATCAAAATATTCTGAACTCATGAACCTCCT
CAGACTGTTGCTGGGACTCCCAGATATCAATACTCTGAGAACCACTGATCTAATGTTTCT
TTAGTCAGTTTCTATTTGTTCTCTAGTATAACCAAGCATAAAAGTAATATACTTCCGCCT
CTCTCTCCCCCAACTGACTTTAGTCAATAGTACCT

Sequence 411

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACGCGTCCGA
TCACTTTTTTCTTATGATACCTTATTAGATAAAACATTAGCCCCCTAGAGTGNNNTGTGAA
GGAAATATGCCTAATAAGAGATGATAGTTTTAGCAATAAATGAGCATTAGAACTATTATT
TATTAATGAAATGAACTGGTGGTCTGAAAGTGATGATAAACAGACAACTGTGGAAAATGA
ATTATTAATAATCCATGGAATTCCTTTTGAAGTTTATGAAGTACCTGCCCCG

Sequence 412

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGC
ATTTATTAAGGCTTGATATGTTCAAGATCCAGTGAAGACTGTCTTGGG

Sequence 413

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACAACCTTGATGCTT
TTGGCAGGAATTACAGAACAAACCAATGCCATTCAAGTTGTGGAGATTATACTNGCAGGTG
AACTCGTAAAGAGAAGATTCTGGAATGCCTATATCTGAAAGCTTGAGTCGACACCTN

TABLE 1
72/467

Sequence 414

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGGAATGAGTGAGTGCAGAACTGGC
AACCAGAAGACAGGAACAAGGCCTGGGAATGGAGCGGAAAGGTAGCTGCTATATATAGTT
CCTTCAGCCAGTAACGATTAGAGCCAATAGCCATCTGGATGATGAATGGCTCCTAATTGC
CTTAAATTACGGCAGTTAGCTAAGGGTTTCTGTTGCTACATGGGTACCGTAGGCCGCTG
CACCTGCATAACTGTCCTCAGGCCTGCGTCCCCTGAGTCTCAGCACTTGGGCCTCCACC
TGCCCG

Sequence 415

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCCCAAAGTGCTGGAA
TCACAGGAATGAGCCACCACCCCAGCCAAATTGGGCACAAATTTAAATTTGACTTTTA
TTAATGATATGGTAAAGAGATCTAGCTTGGTCATGACACCCTTGTTTATACGGTGACAG
GCAAATCATTTAAAAATATCTAACTATAATTTCTGTAGTTCACATGAATTGGATATTC
TGAAGCGGCCCNNTGGGTGCACTTTGTAACTGCCCGGGCGGCCGNTCTAGAACTAGTGG
GATCCC

Sequence 416

TATGGCGAATTGGAGCTCCCCGCGGTGGCGGGNCGAGGTNAAGCTTCGACCCACGCGTCC
GATTATTCTCTCCATTTAGGCTATAAATCTTTCAGTGTAGGGTGTTTCTAATGTCNTATT
CTTCCAAAAAAAAAAAAAAAAAAGT

Sequence 417

CCGCGGTGGCGGCCGAGGTACTCTTGATGTCATAAGATTAGAAAATGTGGTTAATTGTCA
TCAACCCATTAAGTTCTTAAATGTCATTGAATGGAGTCCTTGTCATGTTACAGAGGAGCG
TAAAATTGTGGTTAAACATTTTTTTAAAGATTACATGGTAGAGCCACAGTTTGTTATGCA
GAAGGAAAATTTAGCAAATATTATTTTGCTTAATAGCCTTTAAAAAATCGTATAAATTTG
ATTTGTAGTTTTATCCCAGAGTCATTAGATTTTTCCAAAAAAAAAAAAAAAAAAGGT

Sequence 418

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGCCAAAGCCT
TAACTTAGATTGTTACTTATGTTTCTAAATCTGNNGAAGCACATTTCTTTTNTNTNNT
TTTCTTTTACTGTTAATATCCTTATTCTCTATTTTACCAGTGGAGAATGNTTAGTATTAA
TTTCCATTTANCTCANGATTCAAGAAATGCAAAGTGCTATTTTTATCAAATTTCTGAAAG
CCTACTGTCTTCTGNNTTGGAAAGTCCACAACAGCTCTTTAATTTCTTAAGCCCCACTT
TCCTCATCAGCAAGTTGGTGTGGCAATGGATCATAATAGGTTGCTGGGAGGATGAAGTGA
GCGGACCGCGTGGGTCAAGCTTGACCTN

Sequence 419

CCGCGGTGGCGGCCGCACTTTTTTTGTATTACTTCACTTTTAAAAATTCTAAAGAAAAC
CATCATCTCAGACCAGCATTTCGGGACGCGTGGGTCAAGCTTGACCT

Sequence 420

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGTCAAACATCT
CCCTCGTCCGGATCCTTCTAACGCAGGAGTCTCAGACGCAAATGCCGGCAAGGGCCAGGC
AGGTGATGTAAGATGCGTGGAGCAGATGCCAAGCCACAGGGAGTGGTGGAGACTGGGGTG
AACTGGAAAGCACCT

Sequence 421

CCGCGGTGGCGGCCGCCCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGT
CATCTCAAATTTCAAGCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCT
TGAAGATTTACTTTGTATACTTCAAAGATCTGGTCATGAAATTTTGTAGCTAATACATAA
AGTGCCGAATTGAAATCCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACC
AACCCATTCTACCTAACTCAGGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAATG
GTCCACAAAAAACACCTNATGGTCACACTTAAATAGTTTGCATCCCACTACAGGCT
TCTCTGGAGGGATTAAATACTTTGG

Sequence 422

GGTGGCGGCCGCCCGGGCAGGTGTCAAACATCTCCCTCGTCCGGATCCTTCTAACGCAGG
AGTCTCAGACGCAAATGCCGGCAAGGGCCAGGCAGGTGATGTAAGATGCGTGGAGCAGAT

TABLE 1

73/467

GCCAAGCCACAGGGAGTGGTGGAGACTGGGGTGAAGTGGAAAGCACCT

Sequence 423

TNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATAATATAC
AGAGGTATAATCTGTAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGAAAAGGAGT
AGAATGCTTGTATGTGACTAAAATTATGTTGGTATCAGTTTAAAATATATTATTATAACT
TTAGAATGCTATACCCATTCCCACAGTAATCCCATAGTAACCAAAAAGAAAATATCTGT
AGGATACACACAAAAGAAAATCAGAAGTAGATGCAAACTTGTCACTACAGGAAAAAAAAA
GCTATCAAAATAGAAAACAATAATGGAGAAAATAAGACACCAAAAGCTATAAGACTCACA
GAAAATAAATAAATAAATGGCAAAAAGAAGCGGACGCGTGGGTCGAAGACCT

Sequence 424

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAAGCTTCGAC
CCACGCGTCCGATTTGGCAGAAATTCAGGGTAATGTCAAGGTTCTTAAATCTGAGAGAGA
CAAGATCTTCTTCTTTATGAACAGGCACAGGAAGAAATTACCCGACTTCGACGAGAAAT
GATGAAAAGCTGTAAAGTCCATAATCAACAACGGCACATGCTATTCTCCGGCGAGTGGA
GACTGAAAGAGATGTANCTTTACTGATTTACGAAGAATGACCACAGAACGAGATAGTCT
AAGGGAGAGGCTAAAGATTGCTCAAGAGACAGCATTTAATGAGAAGGCTCACCTGGAACA
AAGGATAGAGGAGCTGGANGNCCNTCCCGGGGGCCGGGGNCGCCCGCCCCNNGCAGGGT
CANATGATTGCAGAATTTATGTGATTCCTGGGGT

Sequence 425

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTACTGAGCCACTTA
CAATTATTTCTGAAAAATCTCAGAGAACTGAGGATAGATCAGAAAATTTAAAGAAAGCAA
ATACCAAATTTTCAAACCAGGATAGGAAGTGAATACCTTGTAATACACTTTGTTAAGTG
ATGATAATTCTGAGTAAAAATTTAGAAGATTTGAGAAAAGCATTGAACTTCTAGGGGC
CAATAAAATACCATGCAGAAGAATGTTTAAAAAGTCATGCCAAATTTGAATCCATTTGAT
CCTCAACCTCATCAGATGTTATATGCCAACTACTTATTTTGGCTTAGATAATAATCATA
TAGAATGAAACTTTCCACAAATAGACTGTGGTCAGTGGCTG

Sequence 426

CCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGACCCACCGTCCGGCAATGATGAGCA
AAAACAAGTTTGGTCCCCCTGTTATAGNGCCTGGTAAAGGTTTTTGTGTTGTTTGCAG
GGGTGGGGGAACCAGGAAATCAGATCATCACAACAATATATACTTATCTGTAAGTATGGT
AACTGCTACAGCAAAGGGGCGTATCATACTATTAGCATACTAAGTTTCACTTAAAGAGGT
CGGA

Sequence 427

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGTCAAACATCTCCCTC
GTCCGGATCCTTCTAACGCAGGAGTCTCAGACGCAAATGCCGGCAAGGGCCAGGNAGGTG
ATGTAAGATGCGTGGAGCAGATGCCAAGCCACAGGGAGTGGTGGAGACTGGGGTGAAGT
GAAAGCACCT

Sequence 428

TANGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGACCCAC
GCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGTTGGGAGCACAAAGA
TGAATAATAACAATAGGTTACAGAAAAAGATGAATTGATTGAGAGAAAAAGAACCCTCCA
GGAGCCCTCAGCGTAGTAGGGGTTGGTGTGGAGGGTGGAGGAATGGAAAAGGCCCTGA
AATGCAGGCAGAGAAATGATGAAACAATTCAGGGGCTGTGGTGAAGTTAAATGAATATCT
TTACAGCAGCCTCNAAGACTGATCAGGTTACTATACCCTCTCTTNTGTCCACNGTGCATT
TNAA

Sequence 429

CCGGGCAGGTCAAGCTTCGACCCACCGTCCGGCAATGATGAGCAAAAACAAGTTTGGTCC
CCCTGTTATAGAGNCTGGTAAAGGTTTTTGTGTTGTTTGCAGGGGTGGGGGAACCAGG
AAATCAGATCATCACAACAATATATACTTATCTGTAAGTATGGTAACTGCTACAGCAAAG
GGCGTATCATACTATTAGCATACTAAGTTTCACTTAAAGAGGTCCGA

Sequence 430

TABLE 1

74/467

CCGGGCAGGTACACTCCAGCTCCTCTATCCCTTGTTCCAGGTGAGCCTTCTCATTAAATG
CTGTGTCTTGAGCNATCTTTAGCCTCTCCCTTAGACTATCTCGTTCTGTGGTCATTCTTC
GTAAATCAGTAAAGGCTACATCTCTTTAGTCTCCACTCGCCGAGAAATAGCATGTGCCG
TTGTTGATTTAGGACTCTTACAGCTTTTCATCATTTCTCGTCGAAGTCGGGTAATTTCTT
CCTGTGCCTGTTTATAAAGAAGGAAGATCTTGTCTCTCTCAGATTTAAGAACCTTGACAT
TACCCTGAATTTCTGCCAAATCGGACGCGTAGGTGGAAGCTTGACACCTCGGCCGCTCT
AGAACTAGTGGGATCCCCCGG

Sequence 431

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACGATTTAAATCTC
CTCCTCCTACAGCGGTGAGTATTGAAGCAGGTCTTTGAGGATGGGCNGGAATTAGAGTC
ACCAAAGGAGGAATACCCTCACAGTTTTCTGCAAGAGTCTCTTGAACAATGGATGGTGT
TTATGGGTCTGGGGAAGACCCCNCGCCCCAAATGTTGCTCCCCT

Sequence 432

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACACAAACACACACACAA
AGTTTAATATACTTTTTAAAAATTTTATTGTATTGTTTTCTTGAAATAGGGTCTTGCTA
TGTTGCCTAGGCTGGTCTTGAACCTCTGGGATTAAGCAATCCTCCCACTAAGCCTTCCA
AAATGCTGGCATTACAGGTGTGAGCTACCACAATCAGTCTCTTAGATTTTGTTTTTTAAG
AACAATCGAAGTTTACTGCAAATTTGTGAAGAACGAACAGACTGTTCCACATATCCCT
TTTTCTTTACACACCGGACGCGTGGGTGGAAGCTTGACCTGCCCCG

Sequence 433

CCGCGGTGGCGGCCCGCCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGGCTTGAGGTGGG
TTTAGGAAACATTTGGTATCTNTGGCAGGGACAGATGTTGACCTGGCCGGTCGGCAGCTT
TTACAAACCTAAGGACTTCAGGGTCCGGTTGCGCATGAGGACCGGGGAGGACAGAGCTGT
TTGCAATAGGTGTGGGCTTTTATAGCATTGTGAGCATTTCACGTTAGCGTAAGTGTGCT
GCTGTGCAGGTGGTCTCTGGGGCTTACAATCTTCCCAATGTTCTTCCCCACCCCTCCCA
CCATTCTGGTGAACAAGCCTCTTGGGATTCTTTGAAAAAAAAAAAAAAAAAACCT

Sequence 434

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACATAATATACAGAG
GTATAATCTGTAAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGAAAAGGAGNNGAA
TGCTTGTATGTGACTAAAATTATGTTGGTATCAGTTTAAATATATTATTATAACTTTAG
AATGCTATACCCATTCCCACAGTAATCCCATAGTAACCAAAAAGAAAATATCTGTAGGA
TACACACAAAAGAAAATCAGAAAGTAGATGCAAACTTGCTACTACAGGAAAAAAAAAGCTA
TCAAAATAGAAAACAATAATGGAGAAAATAAGACACCAAAAGCTATAAGACTCACAGAAA
ATAAATAATAAATGGCAAAAAGAAGCGGACGCGTGGGTGGAAGACCT

Sequence 435

CAGGTACAGGCACCTATATGAATTTAAACGGGGAAGATTTCTTTATTTTGTATTCAATGT
ATNAATAAGATTNTTAAACATATTTTGGAGAAATNGCTAATTAGTGTATAATCCTGATG
CCAATTCTAAAAACCTTTTTTTTTTTTGNAGAGACAGGGTNTTATTCTGTACCCGGGC
TGGAGTGCTCTGGTATGATCCTAGTTCACTGCAACCTCAAATACCTGGTCTCAAGCAATC
CTCCACCTCAGCCTCCCAGTAGCTGTCTCTATAAGCATGCACCACCACACCTGGCTAA
CCTTCTTATTATTTTGGTAGAGACAGTCTCACTATGTTGCCAGGCT

Sequence 436

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTATTCAACAAGGGCCCTGAGAG
AGGGACAGGCAGCCCCTGTGAATCTTGCTGTTGAGCAGAGACAGGAGTCAGCACGTGTGA
GGGCAGCAGGGAAGTCTTCCTGGAGGAGTGAGACCTGGCGATGAGGAGGCACGGCAGGGA
GGTGGAACAGGCAGGAGAGACTCTTCAGGAATTGAGGAGATAGAATAGAGGACACTAAAG
CCTTAGAGAGGCCAGGGGTGGTGGCTTGGCAGGATCATCGCTTGAGGCTAGGAGTTTAA
AGCAGCCTGGGCAACATAGCGAGACCCCATCTCTAAACACAAAAAATAAAAAACCTGCCCG

Sequence 437

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCACGTAGCAAC

TABLE 1
75/467

ATATGAGTATTTCTCTAGATAACTTTTTTTTTGACAAGGTCTCACTCTGTTGCCAGGCT
GGAGTGCAATGGTGCAATCTTGGCTCACTGCAGCCTTGACCTTCCCTAGCTCAGCTGAAC
CTCCCATCTCAGGACACCATTCCTCCACTGCCATCCTGCATCTGCCTGCCTACCCAA
AAGTGTTGAGAATACAAGCATGAGCCAGAGCCACGGAACCTGGCCTCTAGAGAGACTTTC
TATTTTAGTTTTTCTTCTCTTATTTGTGAAGCCTTGAAAACTACTGTGGTTTATTTA
GATTCTGGTTTGTGACTTTTTTAAATAAACTTTTTATTTTGAATAAATTTATGTTTGA
GAATAGTTGCAAACATAATAAAGTGAGTTTTATAAACGCCTTACCAGTTTCCCCTGNTG
GTAAACATTTTACATCACCATGCTGTTGCATTGGTCAAACTA

Sequence 438

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCATTTATTAAGGCTTGATATGT
TCAAGATCCAGTGAAGACTGTCTTGGCGGTGTATAATTGATCTTAACCACAAGGCTGAGA
AGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTAATCCTCCAGAGAAGCCTGT
AGTGTGGGATGCAAACTATTTAAGTGTGACCATGAGGTGTTTTTGTGGACATTTTA
AAGCCAATGATAGTTCTAAAGCAATCTCAACCTGAGTTAGGTAGAATGGGTGGTTATC
TGCACTCTAGCGGCCCTTCATAGCTATTGTATTCTGGATTTCAATTCGGCACTTTATGTA
TTAGCTAAAAATT

Sequence 439

TCGAGGCCGCCGGGCAGGTACACAAACCAGATGTATGCANTGATGCCAAAAGTCATCTC
AAAATNGCAAGCNGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGA
TTTACTTTGTATACTTCAAAAGATCTGGTCATGAAATTTTNAAGCTAATACATAAAGTGCC
GAATTGAAATCCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACCAACCCA
TTCTACCTAACTCANGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAATGGNCCAC
AAAAAACACCTTATGGTCACACTTAAAA

Sequence 440

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTAAACTTAAAGTA
TAATAGTAATAATAAAAAAGAGGTGCTTTTCTCCTAAGTCAACATTTTAGAGGAAAAGA
GTCAATTCAAGCAATTATCACATATGTGTAAGTGAAGCACATATGTGTAACTTTTCAAGA
GTGATTAGATGGTCTGTTGTCTTTGAAGTGATAGTCAAAATATCAGGTGTGTTCTAGGGAG
GTTGTGTAAGACTTTTGCTTGATTCTCCCGACGCGTGAGTCGACTCAAGACCTGCCCG

Sequence 441

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACG
CGTCCGATTATTCTCTCCATTTAGGCTATAAATCTTTCAGTGTAGGGTGTNTCTAATGTC
ATATTCTTCAAAAAAAAAAAAAAAAAAAGT

Sequence 442

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGAGGTACAAGTCGACCCACG
CGTCCGCTTCAGAATATCCAATTCATGTGAAGTACAGGAAATTATAGTTTAGATATTTT
AAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCTTCA
TATCATTAATAAAAGTCAAATTTTAAATTTGTGCCCAATTTGGCTGGGTGTGGTGGCTCA
TTCCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 443

CGCCCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGTCATCTCAAAATTC
CAAGCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGATTTACTT
TGTATACTTCAAAAGATCTGGTCATGAAATTTTAGCTAATACATAAAGTGCCGAATTGA
AATCCAGAATACAATAGCTATGAAGGGCCGNTAGAGTGCAGATAACCAACCCATTCTACC
TAACTCAGGTTGAGATTGCTTTANAACCTATCATTGGCTTTAAATGGTCCACAAAAAA
CACCTCATGGTCACACTTAAA

Sequence 444

ACNGNCAGGTACCAAGATTAAGGACAGAGTTCCTCCATTGGTCATTGATTTGNAAACCA
AAATGTATCTGTGACAGGTATTAATCCGGACGCGTGGTGAAGACGAAAGGACACGAGAA
ATANGGACCTANNCCGCTCTANAACCTAGGNATCCCNNNNCTGCAGGAATTCGATATCA

Sequence 445

Sequence 446

Sequence 447

Sequence 448

Sequence 449

Sequence 450

Sequence 451

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACAAGCTTCGACCCACGCG

TABLE 1

77/467

TCCGATTATACCCTAAAAAAGTAGAAAGATGGAATAATTAGGAGTAAAATTAGTGAAATG
GAAAGATATGTTATAGAAAGGACCAAGAAACGCAAAGTTGGTATTTGAAAAGACTGAAA
AAATTCATGAACCTGTGAAAACAGTGGTCAAGAAGAAAAGAGAGGCATATTTTGATCTCT
GTTTTACATGTTACTCAATGTTCAATTGCTGCCTCCCTTGCCATAAAGTGCCTTTAGTGT
GTATGTTACTTTAGATTATCTTGGTGTCAAGCTTTACTCAGCAAAGAACCACCTTTGT
TGTCTACTTTAAACATAAGTTATCTTTAAAGAATGGGTATCTTTATAGTTCCATATT
AATGGCGAAGAACTGCAGGTAACAGTGCCTTACCAGCTGGGTTTTGCTAACTTTTCTC
Sequence 452

CCGCGGTGGCGGCCCGCCCGGGCAGGTTTTATTTTTTTTCTCTTTAAAAAATAATTTG
GTTTTGAATATTAATTTACATATTTCTAAGTTAAATCAACATTCGTAGAGGAATTATCA
AAAAAACTAGTAAGTCTGAAAAAAAACCATATTTTATATTCTGAGGTCCCGGACGCGT
GGGTCTGAAGCTTGACCT

Sequence 453

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCAGGTACCCAACACAAACTA
TTCAATAAAGTAATCTGCTTTAAAAATAAAACACACTGAAAGGCCGAGGCAGGTGGATCA
CCTGACATCATTAGTTCAAGACCAGTGTGGCCAACTGGTGAAAATTAGTCTCGACTAAA
AATCAACATTAGCTGGGCGTGGTGGCAGGCGCCTCTAATTCAGCTACTCAGGAGGATGA
GGCAGGAGAATCACTTGAAGCAAGGAGGTGGAAGTTGCAGTGAGCTGAGATCGTGCCATT
GCACTGCAGCCTGGGCAACAGAGTGAGACTCCGTCTCAAAAACACCACCACCAACAAAT
AAACACAACAGAATTATTCTGCAATACAGATATTGGAGTAGCTGAGTTCCATCTCAAAT
TTGACTATGCAGGTTGACAGGTGATCTTGGCAAACACTATTCTCTTCTGAAGTTCAACT
TTTTACCAAATGGTATTGGGATACAACACTTGCTCTTGCCTATCTCACATGAATTATCC
ATTTTGGACAACCTTGTTAACTATA

Sequence 454

CCGCGGTGGCGGCCCGAGGTCCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTG
AGGAAAAAAGAAGGTCCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAGTTGCAAGA
ATCAGAATGGCATTGGACTTCTCAGCTTTCTCATTAGAAGTTAAGATCTGAAGCAATCT
TTAACTCGTGAGGAAAATTAAGTCTAATAAATAATTTTCTTCTTAGCCAAACAATCAAA
TGTGAAGCTAGAATAAGCATTTTCAGGTAAAAAAAAAAAAAAAAAAGT

Sequence 455

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTACAGCATCCTGATAA
CAGCCTCTGCCCTGGGAAACAGACTGTGACCATGCATTTCTAGTCCAGCATATCCTATCA
GAAGACCAAATGGCTTCATCAAAAACAGAGTGACAACCTCTTCTCTTTGCCTCTTCTGTG
CTTGTTAACAGGCAGCATTGGGGCAGGAGAGCCTGCAGGCCTTTCACGGCTGCTTGAGTT
CTCACCTGTTTTGTCTGAGCTCTGATTCTCTGCCCTGTAAGCGTAAAGGAGATGTGCTGA
GTGGAAGACCTCTAAACAGGCAGCCAGGAAGCCAGATTTCAAGTCCATCTCTGCCTCTA
ACTGGCAGCTTTGCCTTGGGTAAATCATCAAGTGGGCAATAGTTTCTCTCCTGTAAAAGG
AAAAGATTGGGTTTAAGATTGTTTCTGAAGTTCTCTCTAGATTTAACCTGGAAGGAGTTG
AAATTGCTAACC

Sequence 456

CCGCGGTGGCGGCCCGCCCGGCAGGTACAACATTTTACATTTCCAGGGACTGCAAAAATGT
TAGTTCCTTCCCCCATCATTTAGTTTGAAAATTCTTAGATAATTCTTTGCTGGTAAATTC
CAACAGAATAGTTAGCACACAGGTTCCACACACACAAGTTCTAGATAGGAATCTGAAGCA
CCACAATGAAAAGAACATTTAACATCTTTTTAAAAATGTTTAAATGTTATCAGAAAGATGTT
TGGTATATGTGTTCCATGCATGCTCCTGCTGGTTCTATTTGAAAAAGAAGTTTTTACAGT
TATCTGTTGTACCATATTGTAAACGGACGCGTGGGTCTGAAGACCT

Sequence 457

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACAATAAATAGCA
TTCCACGGTGACCACAAGTCTTGGAATCAGTTCCAGGTGTCGTGCTGGCCGTTGACACC
GCTGCCTTCTGACGGTAAATGTATTGTAGAATTCATGTTGTATCAGGCTTCAGTTTCCTC
ATTCTAAAATGAGAGGATTGGATAAGTTAGTAGTTTCTAATTTTACTTTTAAATCAGTGG

TABLE 1

78/467

CATCTCCCATTTATTTTTCATTTGAAATAAACTTTTGAATTTTATCTTCTACCTAAATA
ACATATTTTGTTTTATGTTTCAAGATGAAGCTCACACTGAGTTGGAAAAAGGAAAAAGC
AAAGGATCAAAGCTGGGGGAAAATACTGGACCATGTGCTTCACCTCATGGTGCCAAATAA
AGAGAAAATGGGGAGAAGATAGGGACAGATAAAGATCTATTTGCTCGGATTGNGCTCTCA
TCCTTGGCAACATGTTGACAATGCCCTGGAAATA

Sequence 458

CCGCGGTGGCGGCCCGAGAGCTCCAGGACGAAGGTATAAACACAGCAGAGGGCAGAGCCT
GATTTCAATCAGGGGCTACTCTAAGAAAGGCAGGAACTAGATAAAATACATTTAAAAGAA
ATTCCTCAGTGGCAGGGACAGTAGAGCAGCAGGGGGAGATCCCAGCACGGACAGGTAACA
GTGTGATGTGGCAGAAAGCCTTTGGTTGCAAGTGGAGAACAGATGTCTCTGGCTGCCTCT
GGCAGCTGCCTCCTTCTGGGCCTTGACTTTTCAAAGCCAGGCCAGGCCTCCCCACCCTG
GACCACCTGTAGCTGGTTTCAAGAGCCCGAGGCTGGGCTTCATAGATGAAGACACAGCTG
ACTCAAGTCTCTGGCTCTGTGCGCTCTTGCCACCTTGCCGCTCCCATACGGTGTTTCT
CAGGTCAACCCCTCTTCTCCATTCTACTTCAATGACCTCAGGTCAGGCCCTTGCCACTT
CTCTTCTGGACAAAGATGACAGCCCTTCACTGGTATCCTCGTCTNCAACCTAATTTATNC
TTCACAGTGCTGGCAGAAGTGACATCTTTTAAACACACAACGACCCCN

Sequence 459

GCGGCCGAGGTCCGCACTTTTTTTTTTTTTTTTTTATTTTACTCCAGAATTTTCCTTTA
ATATTTAGGACTCCAATCTTTACTTACAAAATAGCTTTTATTTACGTGCACATGATCGTG
GTTTCAAATTTTCTAAGCACTATGCTAAATTTGTCATCAAAACATAACAGATTCCCATC
TTACAAACATAGTTGCTAGTTGAATGAGTAAAGAGATTTCAAATTTCAATTCAAGGAGG
CATGTCTAAAAGACCAGACCATTCAATTTGATGAAATTGTAATGCCGATCATCCAACCTA
ACAGGAACTGCACATTTGTTCTTTCTAGTTAGAAAAAAATAA

Sequence 460

CCGCGGTGGCGGCCCGCCCGGGCAGGTCTTCGACCCACGCGTCCGTGATTGCCTATTGTT
TGTTGATTGACTGATTTATGCCTCTAAGAGGAACTATCTTTTGATAATATTAAATAAGAT
GTCCTAATACAAAACCTGATAGAGTTCAGAAATAATAAGAATCTCCTGGCCAGGCGTGTTG
GCTCACGCCTTTAATCCCAGCACTTTGGAAGGCTGAGGTGGGCGGATCACGAGATCAGGA
GATTGAGACCATCCTGGCTAGCATGGTGAAACCCTGTCTCTACTAAAAATACAAAAAAA
TTAGCCCGGGTGTGATGGCGACCT

Sequence 461

CGCGGTGGCGGCCCGCCCGGGCAGGTACAGAAAGGACAAATACATCAGTAGAAAAGAAGA
CAATATAAGGGCAGATTGAAATATATACGTGAACGTCACAAAGACCAATTACTGCCATT
CAATTCATGAGGAAAATAATGATGATTTAATAAATAGTGCTAGAAATGCTGCATTATCTG
TCTAGGATGAAAAAAAAAAAAAAAAAAGT

Sequence 462

CCGCGGTGGCGGCCCGAGGTGGAATGTCTGTTTTACAAAATTTTGTATTTTCTCCTAAT
AGTATGAGGTNGAAGAAATCTACATCTTCTCAAGTGAAGCTTATGATTAACCTCGATGAGTT
TTCTTGCTATTCTCAAATCGGAATNTCCAGACCTGGCTAGAAAATAAAGTCTAAGCCCAT
TCATTAAGTCTTGAATTTATTTACTTTNGCCAAGAACAGCTATATAAAATTAGATTCCT
CCTGGTATAAAATTGGGTGTTTTCTTAGATATTNGCTATCAAAAGTCATTTTCTTGAA
ATCGGACGCGTGGGTNGAAGCTTGACACCTGCCCGGGCGGGCGGCCGCACTTTTTTTTT
TTTTTTTTT

Sequence 463

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTGAAAG
CATACAACTGAGGGTTCACGGATTTCTAAGAAATGCATTTCCCTTGTCTATGTTTCATCAG
CCTTTAATACTTTGGCTACAAGGCATATCAGAGAAAGGGAGGTAAATTGGGTAAATGACA
AAAGAACATATGTAACCTCTGGAATAGGAAAAATGTTCCAGAAATGGGATCAATGTGCCA
GCAATAAGCATAGTTTCATTTCAATTTGAAATTCAGTTAAAGAGCCCAATAAACAGTTCCA
AACCGGACGCGTGGGTGGAAGACCT

Sequence 464

TABLE 1

79/467

ACTATNGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTCGACTCAAGCTTTAG
ATATAGGGCATTCCAGAATCTTCTTTACGAGTTACCTGCTAGTATAATCTCCACAAC
TTGAATGGCATTGGTTGTTCTGTAATTCCTGCCAAAAGCATCACAAGTTGTACCTGCCCG

Sequence 465

CCGCGGTGGCGGCCGAGGTAATAGCTAATGCATGCAGGGCTTAATACCGAGGTGATGGGA
TACTTCATGCTAACTGGGTGTTCTTAGTGTAATAATTGACTGCCTGCTCCCATGTGGCC
TCACAGAGTCATAGCTTCTTGCCCCAAATGTTTTCTGGTTTTCTGTGGAGCCATACAGA
ACCATAAAGAGAAGTTGTTGAGAAACCGGTTTGACTTTCAAGTCTGATGAGGAGCCTGGT
TTCCATGAGATTTTCAGCTAAGTTAGCATATTTTTAAAAATTTCAAAATGAACAGAGGAA
AGGTTGACGATCTTTAGAGCCTTCTGCCAGGCTGAAGTGTTCTGCATCTTCCCTAGACCC
GGTACCTGCCCG

Sequence 466

CCGCGGTGGCGGCCCGCCCGGNCAGGTTACAAGCTTCGACCCACGCGTCCGGGAAATTTTA
ATTAATAATAGGTGAACATTTTAAATGACCTAATACATATTTAGTCCACATTGAACTTT
GGCATTTTGTCAATTGCCATTAATTTTATGATGGCATTAAATTTGATGCCATTAATTTT
TGAT

Sequence 467

CCGCGGTGGCGGCCCGCCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGTGATAACTTCTC
CTAAGTGCCAGGCATTGTATTACATGCTGGGAGCACAAAGATGAATAATAACAATAGGTT
CACAGAAAAGATGAATTGATTGAGAGAAAAAGAACCCTCCAGGAGCCCTCAGCGTAGTAG
GGGGTTGGTGTGGAGGGTTGGAGGAATGAAAAGGCCCTGAAATGCAGGCAGAGAAATG
ATGAAACAATTCAGGGGCTGTGGTGAGGTTAATGAATATCTTTACAGCAGCCTCGAAGA
CTGATCAGGTTACTATACCCTCTCTTCTGTCCACGTGCATTT

Sequence 468

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAACAACATTCCCCCTT
CCCCAAACAGTAATATGGACACTGATTTAACAAGACTTATAAAAAATAAGGCACATTTA
TTTTGATATGGTAATTTTAAATAGAAACCCCTTCTCAGAACACCTGTATTCAAATGAGC
TGTGTAATAAGACACCTTGTGGTACCTAAATAGGTTTATGGTACCTATGGAATTGCTTC
TATTTTAGTGAAGATGGAATAAATTGCACCATCCACATTGTCAAGTAATGAAAATATG
CGGACGCGTGGGTGGAAGCTTGACCTGCCCG

Sequence 469

GACCTCTTTAAGTGAACTTAGTATGCTAATAGTATGATACGCCCTTTTGTGTAGCAGT
TACCATAGTTACAGATAAGTATATATTGTTGTGATGATCTGATTTCCCTGGTTCCCCACC
CCTGCAAAAACAACAACAAAACCTTTACCAGGCTCTATAACAGGGGGACCAAACTTGTTT
TTGCTCATCATTGCCGGACGGTGGGTGGAAGCTTGACCTGCCCG

Sequence 470

GCTCCCCGCGGTGGCGGCCCGCCCGGGCANGGTTACAAGCTTCGACCCACGCGTCCGGGAA
ATTTTAATTAATAATAGGTGAACATTTTAAATGACCTAATACATATTTAGTCCACATTGA
AACTTTGGCATTTTGTCAATTGCCATTAATTTTATGATGGCATTAAATTTGATGCCATTA
AAATTTTGAT

Sequence 471

GCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTCAAGCTTCGACCCACGCGT
CCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGGGAGCACAAAGATGAA
TAATAACAATAGGTTACAGAAAAGATGAATTGATTGAGAGAAAAAGAACCCTCCAGGAG
CCCTCAGCGTAGTAGGGGTTGGTGTGGAGGGTNGGAGGAATGGANAAAGGCCCTGAAA
TGCAGGCAGAGAAATGATGAAACAATTGAGGGGCTGTGGTGAGGTTAAATGAATATCTT

Sequence 472

ATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACAAGCTTCGACCCACGCGTCCG
GAGCGTTGCTTGGATTTCTAATTACTTCTAAGNGTAGTTTTATTTAATTTAGTCCTTTA
GAAAAAANAATAAANNAATGTGCGGGCCCGGCCCTGCCCGGGCAGGTNCCACNCGTT

TABLE 1

80/467

CGAAAAAAGAAAGAAAAAACTTTCTCTTTGCCANTTCTTCTTCTTTNTT

Sequence 473

CTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTT
TCCTTTTGAGACACAGTCTCACTCTTGCCAGGTTGGTCTAAACTCCTGGGCTCAAGCA
ATCCTCCCGCTTTCAGCCTCCCAAAGTGCTGGGGTTACAGCCGTGTGCCACTGTGTCTGG
CCCTTTTCTTTTCATAGGAGAAGGGTTGTTGACTCCCAGGAAACGTACCTGGAACCAA
GAATGTGAAGTCAAGGACCCCGCCTGTTGGCAGCTGCATTTACTTGACTCCTGTTCACT
GTTTCTTAGCCTTGTCCTTTCTCTCCTGCCAGTTCTAGGGGACACTGCTTCTCCTGGTTG
ACCTCATCAATGCCCAACC

Sequence 474

CCGCGGTGGCGGCCGCCCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGT
CATCTCAAAATTCCAAGCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCT
TGAAGATTTACTTTGTATACTTCAAAAGATCTGGTCATGAAATTTTAGCTAATACATAA
AGTGCCGAATTGAAATCCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACC
AACCATTCTACCTAACTCAGGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAATG
GTCCACAAAAAACACCTCATGGTCACACTTAAATAGTTTGCATCCCACTACAGGCT
TCTCTGGAGGATTTAATACTTTGGAAGTAGCATCATAAG

Sequence 475

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGACCNGTGCAAATATCTACCCA
GTTAGAAGAGTAAATACCATCTTAGTGTTATTATCAAAATATTCTGAACTCATGAACCTC
CTCAGACTGTTGCTGGGACTCCCAGATATCAATACTCTGAGAACCACTGATCTAATGTTT
CTTTAGTCAGTTTCTATTTGTTCTCTAGTATAACCAAGCATAAAAGTAATACTTCCGC
CTCTCTCTCCCCAACTGACTTTAGTCAATAGTACCT

Sequence 476

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAACGCTTCGACCCACGCGTCC
GGTTTGGGTGGAATTATAATTTTTAGATAAGATTTAAGAGGATTGCTAGATNGGAATGC
GAATGATGATAAGGCTTTTAGAGTTAGATAAGAGAGAGGGCGCTCTAGAACTAGTGGNTC

Sequence 477

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCACAACATTCCCCCTTCCC
CAAACAGTAATATGGACACTGATTTAACAAGACTTATAAAAAATAAGGCACATTTATTT
TGATATGGTAATTTTAAATAGAAACCCCTTCTCAGAACCTGTATTCAAATGAGCTGT
GTAAAAAGACACCTTGTTGTTACCTAAAATAGGTTTATGGTACCTATGGAATTGCTTCTAT
TTTAGTGAAGATGGAATAAATTGCACCCATCCACATTGTCAAGTAATGAAAATATGCGG
ACGCGTGGGTGCGAAGCTTGACCTGCCCCG

Sequence 478

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTATACTAGAA
GATGCTCCAAGGTTTCAGAAAGGAATTAATTACTTTCAATTTGCACAATTTAGAACAAAT
ATCTGGCTTTTCCCTAAGCTTAATGATTTTCCATTTACACAACTAAAATATAATAGCAT
TATTTTATAATCAAGTTTAACTGATGGTCTATGATAGTAGAGCGATTTAGTATTTTGACA
AAAATCTTATGAGACATGAAGTCATTCAATTTGCCGGACGCGTGGGTGCACTCAAGCTAG
ACCTN

Sequence 479

TTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCTTT
CTTTTGTGTTAAGGGCCCATGACCTGCAGTTTCCCTAACATTCATTTTATACAGGGCA
GAGGTATGTGTGCGAGCTCAGATACCTTAAATTCATATGCCTTTAAATACAATCCAGGCAG
ATTTCTAAATGAGGGATGCTTCCCCACAAATGGAGAGTGAAAGTGGGCCAGCCTAAAAGG
ACCTCCATAGCACTGTGCATGGCCAGCTGTTTGTGGCTGTACCTGCCCCG

Sequence 480

ACTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTC
CGCTTCTTTTGTGTTAAGGGCCCATGACCTGCAGTTTCCCTAACATTCATTTTATAC

TABLE 1
81/467

AGGGCAGAGGTATGTGTGCGAGCTCAGATACCTTAAATTCATATGCCTTTAATACAATCC
AGGCAGATTTCTAAATGAGGGATGCTTCCCCACAAATGGAGAGTGAAAGTGGGCCAGCCT
AAAAGGACCTCCATAGCACTGTGCATGGCCAGCTGTTTGTGGCTGTACC

Sequence 481

GACCTCTTTAAGTGAACTTAGTATGCTAATAGTATGATACGCCCTTTTGCTGTAGCAGT
TACCATAGTTACAGATAAGTATATATTGTTGTGATGATCTGATTTCTGGTTCCCCCACC
CTGCAAAACAACAACAAAACCTTTACCAGGCTCTATAACAGGGGGACCAAACCTTGTTT
TTGCTCATCATTGCCGGACGGTGGGTGGAAGCTTGACCTGCCCG

Sequence 482

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATTGACTAAAGT
CAGTTGGGGGAGAGAGAGGGCGGAAGTATATTACTTTTATGCTTGGTTATACTAGAGAACA
AATAGAACTGACTAAAGAAACATTAGATCAGTGGTTCTCAGAGTATTGATATCTGGGAG
TCCCAGCAACAGTCTGAGGAGGTTCTAGAGTTCAGAATATTTTGATAATAACACTAAGAT
GGTATTTACTCTTCTAACTGGGTAGATATTTGCACTGGT

Sequence 483

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGTCAAGCTTCGA
CCCACGCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGGGAGCAC
AAAGATGAATAATAACAATAGGTTACAGAAAAGATGAATTGATTGAGAGAAAAAGAACC
CTCCAGGAGCCCTCAGCGTAGTAGGGGGTTGGTGTGGAGGGTGGAGGAATGGAAAAGGC
CCTGAAATGCANGCAGAGAAATGATGAAACAATTCAGGGGCTGTGGTGAGGTTAAATGAA
TATCTTTACAGCAGCCTCGAAGACTGATCAGGTTACTATACCCTCTNTTCTGTCCACGTG
CATTTNAAAAACNTTGGCCGNTCTAGAACTAGTG

Sequence 484

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGATGGTTTTTGCAAAAATTGAAAA
TGCATCGATATTACAGTTAATTTTTTCAGTGTGTATGTGGTATTAGGCTTAGAACTATAA
CACAGGAAGTTTTTAGAGTATGTCCACTCTGGTTTACTCCTTTGTAAGTATTAATACCTG
ATAATTTACATCCTACAGCCCTGCCTTTTTTTTTTTTCAAGTTTGTCCCAGCAAGTCTT
GGCCCTTGTGATTTTCTTAATACATTTTAGTACCTGCCCG

Sequence 485

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGCTT
CACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCTCAGCAGT
TTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGAAGTCCAATGCCATT
CTGATTTCTGCAACTTACAAGTAGTCTTTTTTGTCTAGACGCTTTCAGGACCTTCTTTT
TTCCCTCAGTCAGTGTATCCAAACCTTCACAGTGATATCTTTGGGTACCT

Sequence 486

ACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTGGAGGCCCAAG
TGCTGAGACTCAGGGGACGCAGGCCTGAGGACAGTTATGCAGGGTGCAGCGCCTACGGT
AACCCATGTAGCAACAGAAACCCTTAGCTAACTGCCGTAATTTAAGGCAATTAGGAGCCA
TTCATCATCCAGATGGCTATTGGCTCTAATCGTTACTGGCTGAAGGAACATATATAGCA
GCTACCTTTCCGCTCCATTCCCAGGCCTTGTTCCTGTCTTCTGGTTGCCAGTTCTGCACT
CACTCATTCCGGACGCGTGGGTGGAAGACCT

Sequence 487

CTATNGGGCGAATTNTNCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACGCGTCCGA
TCATTTTTTTCATTNATACCTTATTAGATAAAACATTAGCCCCCTAGAGTGTGTTGTGAA
GGAAATATGCCTAATAAGAGATGATAGTTTTAGCAATAAATGAGCATTAGAACTATTATT
TATTAATGAAATGAACTGGTGGTCTGAAAGTGATGATAAACAGACAACTGTGGAAAATGA
ATTATTAATAATCCATGGAATTCCTTTTGAAGTTTATGAAGT

Sequence 488

CCGGGCAGGTACAAATCAAGTCATTAACATTTTCAATGTCAAAAATACAGCACGCTGTTA
AGAGTTCTGTGAGTGCTCATTATCCCACTAGATCCCAAAAGGGCAAACCTCAAAGATGA
AACAAAGGCAACGCCATCAATAACCACCATATTCCACAGGCTTCTCCCCTAGGACGTAC

TABLE 1

82/467

CTN

Sequence 489

CCGCGGTGGCGGCCGCGGGCAGGTGGAAAGGTGGGTGGGGAGAGGGAGGCTTATTTGT
TGCTGCAGTGTAACTAAGTGAACCTAATTCATATGACTCAAATAAGGTATATTTGGTT
AGATCTAGGTGAGTTCTACTTTAGAGGAAATCCTGGTAACTGTTGTTTGTTTGTAAGTTA
TAGCTGTAATTAATTTTCCCTGTATTCAAAGCCCCAAACCCTGCATTCAGATACTATGC
ATTTAGACTTCCTTAGGCAAAGTCAAGGCAACAAGCTGATGATTCTAAAGCTATTNTTCA
AGGGAGNTNTTTACCCATCATAAAGGNGGTTTTAGTCATTATAGATAATATTCAATCAA
TTANTACCGGGGATGGCAAAA

Sequence 490

CCGCGGTGGCGGCCGAGGTGTAATTTGGAGAATATTTAAAGCAAAGAGCAAACAACAAA
AACTAAGTTAACACTTACCCAGTGCAGTAAGGGAATTGTAAGATACAGCCTGCTTAAGGA
GGTCTGCAGACAGATGCACCTAAGATTTAGCTGTTTTAGGTCACTTTTCTCAAAATATT
TATTATCTGGCAATGGGGATGGGAGTGGGGAACACCTNTCTGTGAGGCAAATGGTATCTC
AACAAATACCGACTTTTCAAGGAAGAAAGCTCTCCACTTCTCTATAAACTTATATACTA
CCTTAAACAGTATGCAGTATTCGCGGACGCGTGGGTGGAAGCTTGACCTGCCCCGGGCGGC
CCGCTCTAGAACTAGGTG

Sequence 491

CCGGGCAGGTACAGCCTCACATACACAGATGCAGGTGAAGTCACCAAAGCTGATCTCTCA
TTCGTTCTGGGGACAGTTAGCAGCGTAGTGGTCCCCTGCAGCAAAGTTTGAAATTCAT
TTTCTTCAGGAAAATACCCAGCCAGTCCCTCTCAGTGGAAACCCTGGTTATGTCGTGGGG
CTCCCATTAGCTGCTGGATTCCAGCCTCATAAGGGTGGAGCTCTCCCGTGTGAGCTCGTA
GCACAGAAGGTGAAGAGCCTGCTGTGGGGCCAGTGCTTCCAGATTACGTGGCCCCTTTT
GGAAATCCAGGCCAGGGACATGCTGGACTGGGTGCCCATCCACTTNATCACCCAGTC
ATTCAACAGGGA

Sequence 492

CCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCAGNTGGGGGAGAGAGAGGCGGAAGT
ATATTACTTTTATGCTTGGTTATACTAGAGAACAATAGAACTGACTAAAGAAACATTA
NATCAGTGGNTCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTCA
TGAGTTCAGAATATTTTGATAATAACACTAANATGGTATTTACTCTTCTAACTGGGTAGA
TATTTGCACTGGT

Sequence 493

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGA
ACATCTTGATTTACAAGGGACAAAATGATGCAAATTATATGCTGTCCAACCTACTGGTGA
ACTGGATCAGAATGGTCCAAGGACTGTTAAACAGAGGAAGTATTTACATTTTGAAAACCT
GCGGACGCGTGGGTGGAAGCTTGACACCT

Sequence 494

CCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGAACATCTTGATTTACAAGGGACAAAA
TGATGCAAATTATATGCTGTCCAACCTACTGGTGAAGTGGATCAGAATGGTCCAAGGACT
GTTAAACAGAGGAAGTATTTACATTTTGAAAACCTTGCGGACGCGTGGGTGGAAGCTTGTA
CACCT

Sequence 495

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACCCTAAAA
CTTAAAGTATAATAAAAAAAGATTATTTCTTACTTCAAATCAACAAGATTTGATTG
CATTTAAATTTTCTGTCCATTTGTTCTTCTATGTAATACTTTAAAAATAATTGGCATAA
AAATTCAATCAATTCATAAAAGTCCAAAGCAAAAAAACAATCTACTGACATNTCTTGA
GGAAGAAATGATCAGGATTGACATTAATGAACCCTCTCACAGAGACCACTACACACACAC
ACAAAAAGAAGGATGGGTGAATGGATGCAGAGAGAATTTAATAAGACTGAAATGATGCCA
TACATGCTTTTAAAAAATAAAAAAGTATTAATTTTAAATTTTACTTCAATATAAGAGAAA
AAAAAAA

Sequence 496

TABLE 1
83/467

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCTTCGA
CCCACGCGTCCGTAGTAATAGGGAATTAAGTACCCCTTTTGGATGGGGGAGAGCATCAG
GCTGGGGTCAGGTAAGTGTAATGGCCTTCTGAGCATGCTCTTCTAGGCTGACTCCCAGC
CCTGACTTGAAACCATTAGCGCTAACTTGCTCTGTTTTGAGAAAACTTTCCAACTTTT
GCATGAGAACTAGAAAAAGGAATGTATGCCACGTAAGTGGATTACAGAAATGAGTTAAT
TGTCTCTGTGATAAAAAAATGAAATATTTCTTATTGAATTAATATTTTGTCTTGA
AGCATTTTCTAGTGATAGAATGTATTTGTCTTTTCTGCGGGGNACCTCGGCCGCTCT
AGAACTAGTG

Sequence 497

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCCCCAGGTC
AGCACTTTGAACACTTGAACATCTATGAAATCACATAGTAAAGTGATAGGAGATGGGGCT
AAGCTTTTAATGGCCTTTAGACATAGCATTAGACATAACCTAAGCTGAAAGGCTTTGGGA
AGTTGTTGTGTTAAATCCCCAACACACTCTCGTGTCTTTCTTAGGACTTGCCTNTTATTTA
AAAAAAAAAAAAAAAAAGTTGCGGCCCGCTCTAGAACTAGTTGGATCCCCCGGGCTTGCGA
GN

Sequence 498

CCGCGGTGGCGGCCGAGGTACCCTTTTATAAGGGTGTATCCCCTTTTGGTAACTTACTGT
TTGTTAATTTGTAGTGTTCCCTGCCAGTAAGCTTGTAACACTCTAGTGACTCACCTTCGG
GTGGGAGGGTAGGAAAGGGAGAGGCCTGCCTCCTAAACCTGGGAAGATGGGGAGAGAGTG
GTAAACCTGAGAGCCCCAAAAACAAACCAAAACAAAAAAAAAAAAAAAAAAAAAGT

Sequence 499

AGGTACCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTGAGGAAAAAGAAGGT
CCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAGTTGCAAGAATCAGAATGGCATTG
GACTTCTCAGCTTTCCTCATTAGAAGTTTAAGATCTGAAGCAATCTTTAACTCGTGAGG
AAAATTAAGTCTAATAATAATTTCTTCTTAGCCAAACAATCAAATGTGAAGCTAGAAT
AAGCATTTTCAGGTAAAAAAAAAAAAAAAAAAGT

Sequence 500

CCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCAGTTGGGGGAGAGAGAGGCGGAAGT
ATATTACTTTTATGCTTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAACATTA
GATCAGTGGTTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTCA
TGAGTTCAGAAATATTTTGATAATAACACTAAGATGGTATTTACTCTTCTAACTGGGTAGA
TATTGCACTGGT

Sequence 501

CCGCGGTGGCGGCCGCCCGGGCAGGTGAGGAGTGCCCAAAGATTTCCCAAGTCCAGCCC
AGAGAAGCTGAAAGCCTTTCCCCAGGTGTGGGGCTGAGTTAGATGTGGGTCATAAAGGA
TGTGGCCTCGAGGCTGGGAGGCAGCTGGGCAAAGTGGGAAGCCTCCCTACTCCTGAGACA
GTGATGGCTCAAATCCAGGCCAACCTGGAACATGATCCTCAACTTCTCTAAGTTCACCTT
TCCCAGGTGTGAAATGGGTTGTTCTGGGAATTGAGTGAGCTAATGATACACTCCCTGGCA
CACAGCGAGCCTNAAAACGCTTGTGTCCCCTCCCTACCTCACAGCCCATTTTAGAAGTTT
GCTGTCACTTA

Sequence 502

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTTTTCTTA
TGAGTGGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGAGTGGGAGGTGACTGATCGT
GGAGGTGGATTTCTTATGAGTGGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGATTG
GCTTATCACCATCCCTCCTTGGTGCTGTTTTGCAACAGTGAGTGATTTCTTGTGAGATC
CGGTTGTTTAAATCCANAGGCACCTNCCCCTACCCTCTAGCTCCCATTCCTGCCATGTAA
GACACCTGCTCCCCCTTTTCTTACCCCATGATTGGAAGCTTTTTTGAGGCCTCCCCAGA
AGCTGATGCCAGCCCTATGCTTCTGCACAGCCTG

Sequence 503

CTACTATAGGGCGATTGGAGCTCNCCGCGGTGGCGGCCGAGGTTTTTGAATGCACGTGG
ACACGAAGAGAGGGTATAGTAACCTGATCAGTCTTCGAGGCTGCTGTAAAGATATTCATT

TABLE 1

84/467

TAACTCACCACAGCCCCTGAATTGTTTCATCATTTCTCTGCCTGCATTTTCAGGGCCTTT
TCCATTCTCCACCCTCCAACACCAACCCCTACTACGCTGAGGGCTCCTGGAGGGTTCT
TTTTCTCTCAATCAATTCATCTTTCTGTGAACCTATTGTTATTATTCATCTTTGTGCTC
CCAGCATGTAATACAATGCCTGGCACTTAGGAGAAGTTATCACGGACGCGTGGGTGCAAG
CTTGACCTGCCCCGGGCGGC

Sequence 504

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCGTC
CGAAATTCCTGGTTAAGGATTATTATAAAATAGAATGGTATTTAGTAAATCCCTGAGGC
TTAGGAGTCCAGGTACAATGTTGGTTCTCAATTAATAATATCAATGTCTAGGGACACT
TAGGAACACAGAACATATTTAGAGCTAGAAAATATACAGCTTCAGACCAGGCAAAGTG
CTGGGATTACAGGCGTGAGCCACGCTCGTCTCACATGGGGTTTTATTATTAGGATG
GTAAGAGTATTATAAGGGATTNGGTACAAGGCATAATGAGTCCTTTGCTTTTAGGCTT
TTGACTTNTGGTTTTAAGACTTTTNTTTAGCTTTTGTGTTNGTTAGACANCCATTGGGCA
AGGCTTNGGTTTTTAATAAAGTTTGCTTGGGATNAAACNTGACCTTAATGGAATTGTC
CCCTNCCCCCAAAA

Sequence 505

CCGCGGTGGCGGCCGCCGCGGCAGGTACTACTGATACAAATAGCATGGATGAAACTCAAA
ATCATTATTCTAAGAGCCAGATACTATAGCCTGTATTTTATGATTCACTTTCAATGAAAT
TCTACAATAGACAGAACTATCTATCAACAGAAAGCAGATCAGTGGTTTTCTGCAGCCAGA
GGTATGAAAGGTTTGAACATGTGGCACCAGTAGGACATATGGAACTTTTTTGGTGTGA
TGGAAGTATTTTTTATCTTGATTGTGTGGTGTGTTATACAGTGGTATACATTTGACC
T

Sequence 506

GGGGCGGCCCGCCCGTTTCAGGTACACGTNTTTNCCAACCAATTTTATANGNATATATATAT
TCTACTTCCAACACCCNTNTTCATCCTGGTNCAATCAAAGCCTGGTTNTGGCCAACAANA
AACTCGTCAGGAGATCGAAGGNTGTAGATGTCTGCACGTGGCTTCCTTGGAGGTCCAGNG
GNGACTCCCTCTTCCAAAATCCATTCTGTACCCGCTGGCTGCTCTAACGGGCAGGACAAC
AGCGTATGAAGCCTGACTGCAACTAGGAGAAGTACCACACTCCCGGACGCGTGGGTGCAA
GCTTGTACACCT

Sequence 507

GGCCGAGGNCAAGCTTTTACCCACGCGTTTGAANCCATCTGTTTGGNACCCNGAAAGGGG
GCAGGAAAGGCTGGGGTCCCAGNCCACCCTAAGGNGATCTGAGTGGCCAGGGCTNCAAG
NNNNCCACCTGNCCAATGGGACCCCTTCTGNCCTCACCTACAAGGGGCACAAAGGGAA
GACACCAAACTGGCAGGAACTTTTACGCAATCAAGGGAAGGAAAGGCANTCCTGGCAG
AGGGAACAGCANGCCAAGCGGGAGAAGGCTCAAAGTAAGGAGGGTAAG

Sequence 508

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGCTTTTCAATTTTATTGTAT
AGTTTTTGATAATGTTAATGTCTGAGATCTTTATGGGTGAGTCTGCTGTCATTTCTGCTA
TTTCTCGTAGTGATTTGCTTGATGGTTTATGATTTTTTAAAACTGAATGTGTATTAGA
ATTGTGTCTGGTAATTCTTTAGGGACCCATTGTAGATGTATTTCTTCAAAGAGCATTTGT
GGTTATTATATTTGGGTGCTTGGGGCACTGCCAGTACCTGCCCG

Sequence 509

CCGCGGTGGCGGCCGAGGTATTGAACCAGGTCAAACATTGTTGAATATCAAACCCAATC
TATTTAATCTGTAAGAAACAAGGACCCTGAGAAAGATTCTGACCAAGGGTATGTGATCGG
AACTTGACAGATAAATGTAGTATACTTGTAAGCCATACTGTGAAAACTTGGGGATTA
TTTGAACACAAATTATCACCTGGAAAAAGACAGAAAACAAGGCAGAAGACTGTGCAAAGA
GGTTGGAATATTCAAACCTTCAGATTAGAAG

Sequence 510

CCGCGGTGGCGGCCGAGGTACCCAANNGATATCACTGTGAAGGTTTGGATACACTGACTG
AGGAAAAAAGAAGGTCCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAGTTGCAAGA
ATCAGAATGGCATTGGACTTCTCAGCTTTCCTCATTAGAAGTTTAAGATCTGAAGCAATC

TABLE 1
85/467

TTTAAACTCGTGAGGAAAATTAAGTCTAATAAATAATTTTCTTCTTAGCCAAACAATCAA
ATGTGAAGCTAGAAATAAGCATTTTCAGGTAACCAAAAAAAAAAAAAAAAAAAGT

Sequence 511

CCGCGGTGGCGGCCGCGACCGCTTGGCCGCCCGGGCAGGTCAAGCTTCGACCCACGCG
TCCGAAATTAATGAAATGTTTTACATTCTTTAAAAACCTTTGAAATATGGTGTGTATTT
TATGCTTTAGCAAATCTCAGTTTGGACCATTTAGGTGGTCAGCAATTACACATGGCTAG
AACTAAGAGCAATCAGTTTTNTCCACAGTTTTCTAAAAATTTCTTGTCAAAAATCTTG
ATGGTATGAATTACTCTTTTAAAAAGTGCACCTNACCAGCAACAGAAAAAACCCTGGAG
GGGTATGGGTTTTAAAGCTGGTACCTNGGCCGNTCTAGAACTAGGTG

Sequence 512

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCCCAAAGTGCTGGAATCA
CAGGAATGAGCCACCACACCCAGCCAAATTGGGCACAAATTTAAAAATTTGACTTTTATTA
ATGATATGGTAAAGAGATCTAGCTTGGTCATGACACCCTTGTTTATACGGTGACAGGCA
AATCATTTAAAAATATCTAACTATAATTTCTGTAGTTCACATGAATTGGATATTCTGA
AGCGGACGCGTGGGTCGACTTGTAACTGCCCGGGCGGCN

Sequence 513

CCGCGGTGGCGGCCGCGGCCGAGGTACAGAAAGGACAAATACATCAGTAGAAAAGAAGA
CAATATAAGGGCAGATTGAAATATATACGTGAACGTCACAAAGACCAATTACTGCCATTT
CAATTCAATGAGGAAATAATGATGTATTTAATAAATAGTGCTAGAATGCTGCATTATCTG
TCTAGGATGAAAAAAAAAAAAAAAAAAGT

Sequence 514

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCACTATAGGGATCT
AGATCACGAGCGGCCGCGCACTTTTTTTTTTTTTTTTTTTTATTTCTGCCACCTCTTTC
ACTTGGGAATCTATTTTCACTGCTCTCCAAAGTTTTGAGAAGGCAATAGTCCTGGAAAAT
GGGTCTGAGCTCCTCTCAGCAGTCTGCTTTCTTTCCACCTGCACTGTAAGGNGACCT
AACTGGGTCTAAGACAAAAGTCGGACGCGTGGGTCTGAAGCTTGTACACCTT

Sequence 515

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTTAGTTACCACTTCA
TACTGGAGGGCACTGTACAAACTTCTGACTATCCAGACTTGAAGCTGGAAGCAAATAC
AAGTCTGAGGGGCTCTAAGCTGGGAGGTTCTGGCCTCTCCCTAGCTCTCTATGGCTCTAC
CTCTCTGTTGAAGCTCCCTGCACTGCACTCCCATTAATCTGACTGGGGATAGGACCACT
GCTGACAGGGCCCACTCAACTTCTTTCATTGCCCTCTTCCAGGAAATCCCACCTGGG
ATACTTCAAAGACCTCATATGCTACAAAGATCAAGGCCACCTAATGAGTGCTCTAGAGAT
CAGCACCAAGATGCTTGCCAGAGTCTTCTCTA

Sequence 516

ACACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCAC
GCGTCCGGGGAACCTTGTTTCAAGTTCTTTTATAGGCAACCCAAGCCAAGACAACAAAGTA
AGATAGAGCCCCAAATGTGGTCTGTATAAGGTTTTTCAAAGAAAGTAACACTTGAGTTAGG
TCTTAAAGTTTACCTAAGAAACTGCCAGGTGGACAAGAAGAAAGGGTGTTCAGTAG
AAATAATANCATGGACAAAGGCAATGTAGCAGGAAAAGTNTTCGTAAATTCAGGGAATTT
CAAGTGTTCACGATGGAAGGAGCAATAGAGTCATTTACTTGCGGTGGCAGGGGATGTTG
GAAATGTAAACAAGAGTGAGATACAGAAGATTTTATGTGGCATGCCAACTGGGACTTTTT
TTTGTAACAA

Sequence 517

TCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGAGAAATACCATTTCACAC
GTCAATCACTTCTGACCAAGCTTATCAGAAAAAGGAGAAAAGAATGTCTCCCCACTAAAT
GTTCTAGGGNGGGNGAGGAAAANTAGGGTGGNTATCTAAATCAACAAATATTCTAGATAT
TCCAATATCTAAATFATTGTTGGAAATACTCNTCCTGAAGNGNTCATTTGAACNCTAAAG
CAGGAGNACAGCNTTTGTTGTATCAANATGGGCAGGGGTTTTTAAAGGGTNTCCATTTTT
TNTTANTTTCCNCATTATTAATTCNTTNTAAATNNTTTTTAGGACCAAAAATTTTTCC
CNTTCTTNGAGGTNTTAAAGGGGATTTAANAAATGGGNNANNTGGGGGGTTT

TABLE 1
86/467

Sequence 518

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGGTAGAGAAAGATTCAA
AATGCTGCTGTTCTACCTGAGATGGGAAAAATGAAAGCAAATAACATCAACAAAAACAA
ACAAACAGCCTTGTAGTTCCATGTCACTAGCCAGGGATTTAAGACCAGCCTAGAGAACAT
GGTGAGACCCCTTCTCTACAAAAATAAAAAATAAAAAATACAAAAATAAGCTGGACATGGTGG
TGTGTACCTGCCCG

Sequence 519

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATGCTTCGACCCACGCGTCCGCTCACT
TCATCCTCCCAGCAACCTATTATGATCCATTGCCACACCAACTTGCTGATGAGGAAAGTG
GGGCTTAAGGAAATTAAGAGCTGTTGTGGGACTTCCAAAGCAGAAGACAGTAGGCTTTC
AGAAATTTGATAAAAAATAGCACTTTGCATTTNTTGAATCTTGAGCTAAATGGAAATTAAT
ACTAAACATTCTNCACTGGTAAAATAGAGAATAAGGATATTAACAGTAAAAGAAAAGAAG
AAGAAAAGGAAATGTGCTTCCACAGATTTAGAAACATAAGTAACAATCTAAGGTTAAGGC
TTTTGGCACCTGCCCGGGCGGCCCGCTCTAGAACTAGTGGGAT

Sequence 520

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCTTCGACC
CACGCGTCCGAGCTATGGACCTAAGGCAGCGAGTGGATTCAATAGTCCTCTTTCAGCTGA
ATGCATGCTACAGTATAAGAAAAAGCTGCTGCCTATATGAAGTCTTTGAGAAAGGTTTG
TAGCTGCTGTTAATATTTAAATCAGAGGAAACATCAGGAGTCATTCTAGAGAATGGCAA
GAGTTTTTCTGCAGTTTATATTGTTGACTTTTTATACGATATTGGGGTACCTCGGCCGCT
CTAGAACTAGT

Sequence 521

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTCGACCCACGCGTCCGC
TAGGAACTATGTTAAAAAAATTCAGAAAGAATTTAAGGGAGATTACAGTGTTACTGTG
ACACCAGGAAAACTTAGAACTTTGTGTGAAATAAGACTGGCCAGCATTAGAGGTGGGTTG
GCCATCAGAAGGAAGCCTGGACAGGTCCCTTGTTTCAAAGGTATGACACAAGGTAACCCG
TAAGCCAAGGCACCCAGACCAGTTTCCATACATAGAACCTGCCCG

Sequence 522

CGACTACTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTT
TTTTAAGTAAAGAAGGTTTTATAATATAGTGAAAAACAATACGGAGATGAAAACCAGGAGA
CCTGGGTCCCGCCTTTGTTACAAATGCCTTTCCTAAAAGCTCCAGAATGGTGCGAGGTCA
AAACAGATGGGCAGAAAGGAAGTGGTCATCAGAGCAAGAGAAAGAGCAGGTGCCAGGCAC
TCACGTGTGCGGTTCATATCAGGTAGAGATGATGAGTAGAGATCTGCCCTAGAAGACACTG
AATTCTGAGATTCAAAGGGGAAAAGTTGATTTTATAGCCAGTGATTTTATAGCCCACTTT
CCTGCCCCACCCCTACTNTAAGAATTGCGGACGCGTGGGTCAAGCTTGACCTGCCCG

Sequence 523

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCCAGAAATA
ACTAAATAAATAAAAGGCTAAAGAAAACCTGGAACAGTACTGCGTCTCCATCTGAGACGCA
NTCTTCTACTTCCAGCATCGNAGAGAAGGGCTAGGGACAATTTTTTTTCAAAGATTAT
ATACAGGCTTGAATCCAGAAATTAAGGNTAAAAGCATAAATATTGATAATTTCAACTAAA
TTCAGAATGGNTTCAGAAAGATATGATACAACAATTTAGAATAAAACAAAGCAGAAGAGC
ATNATATTTTGCGGACGCGTGGGTCAAGACCT

Sequence 524

CCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACGCGTCCGCTTAAAGATTTTTT
TTTATGTAACTGTTGAATATTTGAAATAGTCCACTTCACCTTAATGGGTCTTGTCTATC
TTCATTAGTCTTCAAAGAAAAACCATTTGCTACCAAAGTAAATCAGTATTTTGAATGTGC
TTCTCTTGTTTTTTGTATTAGCTAGTTCCTGTAAGCATTTCCACCAGAACTTGAGGCA
AATCGTAAGGAAGCTGTTTCTTTTAAACACAAACCACCACCAAAATTTAAATGTACCT
GCCCG

Sequence 525

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTCAAGACCCGCTGGC

TABLE 1
87/467

CAACATGGTGAAACCCCATCTCTACTAAAAATATAAAAAATCAGCCGGGCATGGTGGCATG
TGCCTGTAATCCCAGCTACTCAGGAGTCTGAGGGAGGAGAATCACTTGAACCTGGAGGCA
GAGGTTGCAGTGAGTCGAGGTTGCGCTACTGCACTCCAGCCTGGACAACAGAGGGGAGACT
CTGTCTCAAAAAAAAAAACCTACAGCTGTTCAAGGACCAGCTGACAGGTCAAGTGTGGCC
TTTTCTGGTCTTTGAACACATCATAGAAAGTGACAAATGCTGCAAAGCCATGAAGAACAT
GAACTATAAACGGGTAGACTAACTGCCAGCTTAGACACTTATCTATGCCACAAAACAGC
TGAATT

Sequence 526

CCGCGGTGGCGGCCGAGGTACCAAACCCGGCTTTTTTCGAAATACCTGCAAAAAAAGT
GGATGATTCCAAATCCAAGTGTCTGCTCTCTCCAATTCAGAACAACCAGAAGG
GCCTGTCTTGAATTAGGTAATGCATTAAAGAAAAGTAGGATTATTATTTCCAATTTCTT
CCATCAGATGTAAACATTATTGGTAGATCAGATCTGTTTTAATAAATCTGTAAGAAAGA
CGTGAATTATAATTATGTTACCATTGTATGTAAATGGCATTTTAACAAGACATATTAAT
ACATTTTTATAGAGTACCTGCCCG

Sequence 527

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGT
CCGGTTAATTTGGGAGAAGGAAGAGAGAGTGACATATTTGGCTACCTTCAGGGAACAAAA
TCTAACAGCACAGATGGTAGTAGAGGAGATACCAATTTACATATTAAGGAGCTAGAGTTG
ATGATGGTATGACTCAGCCCTCTGAGATTAAATCTACTTACTAGGGCTATGAATGGAGA
TAAGTAGGTATCCACCTTTTATTAGAAGGTTCTTAAAATAAATATGGGACTCTGGTCA
GAGAGTAGGGCCATTAATTTGCTCCTGGTTTTTACCTGGCATCCACCCACCAGTACCTGC
CCGGGGGGCGGNCGGCCCCGCCCGGGCAGGTCCCGCACTTTTTTTTTTTTTTTTCTTT

Sequence 528

CCGCGGTGGCGGCCGCCCGGGCAGGTATTGCCCTTTGATGTCCCATGAGGGCCAGGCC
AGGCAGAACCCATCCCATTTTATCCTTAACTCAGAAGGAAATTTGTCTAAATATTTAAAG
GATTAATATGGGGAATAAAAAATGAACCTTAAACCCTGCCACTGATACACAAGCTGTCTC
TCTTAGAGTTCAATGAACACTTCAGGAGAGTATTTCCAACAATATTTAGATATTGGAATA
TCTAAATATTGTTGATTTAGATAACCACCCTAGATTTCTCACCACCCTAGAACATTTAGT
GGGGAGACATTCTTTTCTCCTTTTTCTGATAACTTGGTCAGAAGTGATTGACTGTGCAA
TGGTATTTCTCAGCTAAAAATCTCCCTTATGAACCCTTCTCGAAATCC

Sequence 529

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCCATTTCCCTGAAACA
AGCAGCCAGCAACTATCTCAGAAATGTGTCAATTTTACTGGTTATAATTTCTAAAAAGCT
TGTTTTCTAAGATATGAAATGCCTGCCAGTATACAAACTGTTGTAAGTACTTCCCTTTT
TGCTTTTAGCGGGGAAAAAATAGCTTAATGACAGCATAGAATCATGTAGTAAATATAATT
CATTTTTTGAAAGGTTCAAGTATATCCTCTTCCATTTGTTTATTTTAAATGATCTAATTG
CAAACATGTCATCACTCCCTTGATGTTTACCTCCTTGTTATGCATTTTTCAGAGGCTTTA
TTGTCACCTGAGATTTTTTTTTTCTTTGACAGGCCGGAGTCTAGATGAAGGAAAATGTGT
TAGAAGCACCTTATCCACAGATGGGG

Sequence 530

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGTAGCAGAGCAGCTCCCTC
GCTGCGATCTATTGAAAAGCTTGAGTCGACCCACGCGTCCGCTGCATAAAAGTTATGCAA
AAAGCATTTTATGATATACCAGCAAAAAACATGGAAAATGAAATTTTGAAGCAATGCC
ACTTCAAAGATCCCTCAAGTGCCTAGAGGGAGAAAATGAGTTAATATGCTTTGAAGAACT
GTATCCAGAAAAATAAAATTACAAAGGAGGAGAGGGATAGGATTCCAGGACAATCTCAAAA
CTATTGCTTTTTCTAAATTCATTGCAACCTTAAATCCTAGCAAGTTCTTTAATGTAAA
TTAACAAGCTAATTCTAGAATTCATATGCATATTCAAAAGTCGAATAATTGTCAAGGCTA
TCCTGTAGAATGGGACAGAGAGGATTGAAATTT

Sequence 531

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAATCCCGTCTTAC

TABLE 1
88/467

AGAAGAGAAAAGTGAAGTTAGCAACATAAAAGTATTTCCCGTAAGTAAACAGTAGAGCC
AAGATCTTGACCTACGCCATCTGATACCCTGAGCCCATGCTATAAAAGAGGAGCATTAGA
AATATTTGAAAGATAGAAATGAGAACTAGTCAATATTTATTTTGCTTAGCACTGTATTCA
GTATTATGGCATCTTAAAGTAGTTAAGACTCAATATTTTCATCAAAAAGTTTAAATCTA
ATCAGAGAAT

Sequence 532

CGCTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATAAGCCCACCC
CACTAGGAACTATGTTAAAAAAAATTCAAGAAAGAAATTAAGGGAGATTACAGTGTTAC
TGTGACACCAGGAAAACCTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGG
TTGGCCATCAGAAGGAAGCCTGGACAGGTCCCTTGTTTCAAAGGTATGACACAAGGTAAC
CCGTAAGCCAAGGCACCCAGACCAGTTTCCATACATAGAAAGTTACAGCTGCTTTTATAC
CCCCTTGCCCCGCCAACGTAGT

Sequence 533

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTTCGCACTTTTT
TTTTTTTTGTAGAGACAGGATCTCCTTATGTTGCCAGGCTAGACTTGAACCTCTGGGC
TCAAGGGATCCTCCTGCCTTGGCCTCCAAAAGTGCTGGGATTATAGGTGTAAACCAGTGT
GCCTAGCCTACAGTTTTTTAATTTTATAAAATGTTATTTCTAATTTTTCTCCAAAAGTAA
AAGTGGCATTCCAATGGCAATATTAATTCAGGTATCCAGAACTCTTAACCTAAATTTGGG
TGAGATGAGGAAAAGTGATTGTTAATTTTATGTGTCAACTT

Sequence 534

CTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTCTTCGACCC
ACGCGTCCGTAGTAATAGGAATTAAGTACCCCTTTTGGATGGGGGAGAGCATCAGGCTG
GGGTCAGGTAAGTGTAATGGCCTTCTGAGCATGCTCTTCTAGGCTGACTCCAGCCCTG
ACTTGAAACCATTAGCGCTAAGTGTCTGTTTTGAGAAAACTTTCCAACTTTTGCAT
GAGAACTAGAAAAAGGAATGTATGCCACGTAAGTGGATTACAGAAATGAGTTAATTGTC
TCTGTGATAAAAAAAAAAATGAAATATTTTCTTATTGAATTAATTTTTTGTCTTGAA
GCATTTTCTAGTGATAGAATGTATTTGTCTTTTTTCTGTTGGTACCT

Sequence 535

CCGCGGTGGCGGCCGCCCGGGCAGGTGTCCCATGAGGGCCACGGCCCAGGCAGAACCCA
TCCCATTTTATCCTTAACTCAGAAGGAAATTTGTCTAAATATTAAGGATTAATATGGG
AATAAAAAATGAACCTTAA

Sequence 536

GAANTGGAGCTCCCCGCGGTGGCGGCCGAGGTCCAGTAGATTTGGAGAGTAATACAAATC
CTTTCTTTCTGGTTAGAACACACTGCCAAAAGCCACCTCTTTCATCTAAGGAAAAGATTA
AAAATGCATGTTGATATCTCCTAACTATCACACAACTTCCACTATTACAATGAAAAATCT
GGTCCCCTTTTATTGCCTTTGAAAACCNNTTTTGGCGAGGTGGNTTTCAAAAAAACNCGNG
ANTTTTAAAAANTTGGNTTTGGTTTTACCNGGGGAAAGGGGACNTTTNNCNNTTTTTTT
TTTTTTTTTTTTTTTTTNAANGNGATTNNGTTNNGGTTNTNCCTGGGGCCAAATNCC
NTTTTGNNGAACCTTTTTTGGGGTCCNAAAANNACAAAAAAGGGNTTGGGACNATNT
TTTTGNATNCNCNCAAAAAAATTTTTTTTTT

Sequence 537

ACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTTCGACCCACGCGTCCGCTA
GGAAGTATGTTAAAAAAAATTCAAGAAAGAAATTAAGGGAGATTACAGTGTTACTGTGAC
ACCAGGAAAACCTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGGTTGGCC
ATCAGAAGGAAGCCTGGACAGGTCCCTTGTTTCAAAGGTATGACACAAGGTAACCCGTAA
GCCAAGGCACCCAGACCAGTTTCCATACATAGAACCTGCCCG

Sequence 538

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCG
ACCCACGCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGGGAGCA
CAAAGATGAATAATAACAATAGGTTACAGAAAAGATGAATTGATTGAGAGAAAAAGAAC
CCTCCAGGAGCCCTCAGCGTAGTAGGGGGTTGGTGTGGAGNGGTGGGAGGGAATGGAAA

TABLE 1
89/467

AGGCCCTGA

Sequence 539

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGACAAGCTTCGACCCACGCGTCCGCAAGT
TTTCAAAATGTAAATACTTCCTCTGTTTAACAGTCCTTGGACCATTCCTGATCCAGTTCAC
CAGTAGGTTGGACAGCATATAATTTGCATCATTTTGTCCCTTGTAATCAAGATGTTCTG
CAGATTATTCCTTTAA

Sequence 540

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCCATTTCCCTGAAAC
AAGCAGCCAGCAACTATCTCAGAAATGTGTCATTTTTACTGGTTATAATTCTTAAAAAGC
TTGTTTTCTTAAGATATGAAATGCCTGCCAGTATACAACTGTTGTAAGTACTTCCCTTT
TTGCTTTTAGCGGGGAAAAAATAGCTTAATGACAGCATAGAATCATGTAGTAAATATAAT
TCATTTTTTGAAGGTTTCAGCTATATCCTCTTCCATTTGTTTATTTTAAATGATCTAATT
GCAAACATGTCATCACTCCCTT

Sequence 541

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATTGGA
TTGTTAAAAGAGGAGTCTAGAAAAATTAATCCTGAACCCTAAAGAATAAATCTTAAGTGG
TGGATACATGGGTTGAATAGTGTGCTCCAAAATTCACATCCACTTGAACTTCAGAGAGT
GGCCATATTTGTAAATAAGGTATTTGCGGGTGTAAATCAGTTAAGGATCTCAAGATAAATT
CATCCTGAATTATAAGTTGCTTAAATCCAATTACTGGTATCCTTACAAGAAGGTGAGA
GGAGACAGAAATAGAGCCATCTGAAAAGGGTCAGAAA

Sequence 542

CTAACACTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGAC
CCACGCGTCCGCAAAATCAATCAAGGGTTCCTACTCAAGTAAAAAGCAACTTGTAGGAA
AATAATAGGGGATATATTTTGCTCATTAAGGATCTTTTTATAGTGGCTCTTGGTGCAGTG
CCTGTGAGTTAGCCCTTATCCTCAAGGAGCAGCTTAAAAAAAAAAAAAAAAAANGT

Sequence 543

CTACTATAGGGCGATTGGANCTCCCCGCGGTGGCGGCCGAGGTACTTCCTGGAAATCAA
TTAACTGAGTCTTTTGAACCCCTAGAGAAGATAGGAGAAAATTGGTTCAGANCGAGCAT
TTAAATTAAGTCAGCAAAGTCAGAAATTTAAATTGGGCAATTCTTGTCTACATTTTCTT
TAACTCAA

Sequence 544

CTNACTATAGGGCGANTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTGCCAAAGCC
TTAACTTAGATCGTTACTNATGTTTCTAAATCANGTGGAAGCACATTTCTTTTCTTCTT
CTTTTCTTTTACTGNNAATATCCTNATCTNTATTTTACCAGTGGNGAATGTTTAGAATT
AATTTCCATTTAGCTCAAGATTCAAGAAATGCAAAGTGCTATTTTTATCAAATTTCTGAA
AGCCTACTGTCTTCTGCTTTGGAAGTCCCACAACAGCTCTTTAATTTCTTAAGCC

Sequence 545

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATCACACAGAAGGAGG
AGGGAGCTAATCCAGTAACAAACATTCAAAGATTAAATTGTAGATATGCACCTCTGTATT
TGGCACTGTTGATTAATATTATAACACCTTCCTCTCAAAGACAGGCATTCTTAAGCGTTA
GTCACAATATACCAGAATTTGCTATTCATATTAACCACCTTTTAACTTTATAACAGT
AACCAATTATTATAGTTTAAAGAAACAAACGCAATGAGAACTGGGAATGGAATTCAAAT
CCTCCAAATTCCTTGCTATGCTCCAAGCTGCCATCCATAAACAGGTTTAATTTGGGTAAT
TTTTCCATTGTGGGGAAGGGTCAACAAGAAACAATTTAAAGACAATATTTTCCAATACAA
ATAAAGACATACACTTTTTGTT

Sequence 546

TACTTAGGGCGATTGGNANNTCNCCGCGGNGGCGGCCGCCGGGCAGGTACAAGCTTCGA
CCCACGCGTCCGAAATAATAAGCTAGAAGTAATATTTTTCTTTTGTCTATTTTCCAAA
TTGACTCGATATTGATGGCTACTTTTGTAAGTTTTTATTTAAGNTTAAAGGGAATATTTA
TTGATCACCTCTATGTGCTCANTACCT

Sequence 547

TABLE 1
90/467

TACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTCCAGTGCTAAAACATCAGATAAGAGCCTACCTGACATTTTGGAGAATTTGCTGNGCTG
GGATTGATATTCGCAATTGCCTAAGAGTAAAAATAAGACGGACGCGTGGGTGCAAGCTT
GACCTGCCCCGGCGGCCGCGGCCGCGGCCGAGGTACCACAGGAGGCAGAAGGAAATCCTCA
ACCTTCCGAAGAAGGCGTAAGCCAGGAAGCAGAAGGAAACCCAGAGGAGGGCCGAATCA
GCCTGGCCAGGGATTTAAAGAGGACACACCCGTTAGGCATTTGGACCCTGAAGAAATGAT
AAGAGGAGTAGATGAGCTTGA

Sequence 548

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGNNAGGGTCGCGGTGGGTGCA
CTNANGCTAGAGAATTGTAATACGACTACTATAGGGATCTAGATCACGAGC

Sequence 549

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTTTTTTTTTTTTTTT
TACCAGAACATCACATAAGTTTATTTAGATGTAACAGCAATGTTAAATTGACAAGTTT
AATTCTTAAGTGCACCAAGTAACTTAGCCATTTAAGTATTTTTTAAGTTATTCCCTCC
AAAAAACTGAGGGAGCTTTTCTTTCCACCACACCATGGTTTCCAATAGTTCTCTT
TTTGGAGGACTTTTCAATTGATGAGTAACTGCTTTAGATATTTAGAACTTCATTCCCC
AAATGAAAGCTAATCTGGACAACTATATATTGCATAGATTTCTCTACAGATTCTTTGCT
TAAAA

Sequence 550

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGGATGAGGCGGGGA
GGTGGGACCCCCAAACATATATCAGCCCCAACAGCCCTAAGTCTCCTTCTTTATTATTAGG
AAAACAACAACAACAACAACAAAAAATGGCGTCATGAATATGAACAGCATTGTCAGAT
GAATTAGTTGAAGTGGNTTTTTTTTGTTTTTTTTTTTTTTTGAACCTGCCCG

Sequence 551

CTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCANGTGCTTCGCCCCAC
GCGTCCGNAATAATTGGAAANGGCCTATAGATTAAAAAGCTGAGAAAGTATATGGTAGGG
AGCACACTCCCCACAAGTATGAACTCTGNGATTACGACATCTCATAAATNCATGAGCACT
CATGTTGGCTTGCTTTGTAGCTATGAACTTACCCTGTATTATTGAAACGTCAGCATAATG
ACTGGAAGGAGAAATTGGTCCATTTTAGAGCATTACTATTATGCTATCTGTCCATTTAA
TTAATAATTGCATTAATTCATTTAGAAGNGCTATTACATTNGTAGTAAGAAAGTAA
TTCATATATAAATTATTGATTATCAGATGGTTTACTTACAGATACTTATTTTCCTGTAA
ATAGGAGAGTTTACCTGAAGAAAAATAAACTTTTNACTTTTCTGGGAAAAAA

Sequence 552

CTACTTAGGGCGAATTGGAGCTCCCCGCGNGGCGGCCGCCCCGGGCAGGTACCAAGTGAA
TTTAAATAATTGGTGTGGATTGGCCAGTAGCTAAGAAGTGGGCTTTTAAAGAGTNTTGAA
NATNGAANGGGTTTTNTTCTTTTTTAAAAAAGAAAAACAACTATTGATTGTCTATAA
TGAAAAGCTAGGNNTTGCCTNTTTCATGTNTACTCTCCTTCCAAATAGTTATATCCAAAA
CTGTTTTTCCCTCTCCCTACCTTGTCCCCCTATTAAATANAAACNNGGATTGATTAA
TGTCCCGCTCCTGAATACATGTAAATTTGTACCTCGGCCGNTCTAAACTAG

Sequence 553

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTC
CGCTTGCTAATAAAAAACAAACATTGCTAAATAAAACAACCTGAGAAAATCTCCAGAGA
ACTATACTGAGTGAAGGAAGAAAAATCCCCAAAGATTACACACTGTATGTCATTTATATA
ACATTCTTGAAATGACACAATCACAGAAATAGAGAATACTGGTCACTANTGCATTAAGGA
AGGTGTGGAAGGATGTAGTGATGGGAGGAAATGTGTATGGCTGTAACAGGGCAACAGAGG
CNTCATTGTGATGATGGAAGTGTCTGTNTCTTGGGTTTTTTGAATGTCA

Sequence 554

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAG
AACATCTTGATTTACAAGGGACAAAATGATGCAATTATATGCTGNCCAACCTACTGGTG
AACTGGATCAGAATGGTCCAAGGACTGTTAAACAGAGGAAGTNTTACATTTTGAAAAC

Sequence 555

TABLE 1
91/467

CTACTTAGGGCGAATTGNANCTCCCCGCGGGGGCGGCCGCTAAAGGAATAATCTGCAGAA
CATCTTGATTTACAAGGGACAAAATGATGCAAATTATATGCTGTCCAACCTACTGGTGAA
CTGGATCAGAATGGTCCAAGGACTGTAAACAGAGGAAGTNTTTACATTTTGAAAACCTG
CGGACGCGTGGGTCTGAAGCTTGTACACCTT

Sequence 556

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTGG
TTTTGGTTTGTTTTTTGGGCTCTCAGGTTTACCCTCTCTCCCATCTTCCCAGGTTTAG
GAGGCAGGCCTCTNCCTTTCTACCCTCCCACCCGAAGGTGAGTCACTAGAGTGTTACAA
GCTTACTGGCAGGGAACTACAAATTAACAAACAGTAAGTTACCAAAAGGGGATACACC
CTTATAAAAGGGTACCTN

Sequence 557

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCACGCGT
CCGCTTTCAATAGATCGCAGCGAGGGAGCTGCTCTGCTACGTCACAATCTTTCAAAAAA
TGAACATGTAAGAAAAAGCAGTTTTTATTGTGCTAATTATTGCAGGCCTTCATGCACGTA
AACCTCAACAAAATGTGTGCCAACAATATACAAATTTCCATATAAACAAAGTCATTGATC
ACTAACAAAATATAAACATGGNTTCTTTTATATTAGATTTTTTTAAAAAAAGCTATTT
ACCAGCAAGAAAAACAAGTACCTGCCCG

Sequence 558

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGC
ATTTATTAAGGCTTGTATATGTTCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATT
GATCTTAACCACAAGGCTGAGAAGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTAT
TAAATCCTCCAGAGAAGCCTGTAGTGTGGGATGCAAACTATTTTAAGTGTGACCATGAGG
TGTTTTTTGTGGACCATTTTAAANCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGT
TAGG

Sequence 559

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGGCTTCGACCCACGCGT
CCGCTCCAGGAGACTTCTGCTTACCTCTCAGTGATCAAAAACCGTTTCACCACAGTTACT
TACCAGTCTCCTACCGATCCGCATTCTCGCAAGTGTCTTCACTCCATTTACTCTACTGCA
TTTTTCACTGTATTTCTCATGCCAAAACCTTGGGCTTCTCCACCAGTCTGCACACGTTTCT
GCTCTCAATTTCTCACAGCCATCTATTTTCTTCTCCACTAACTGTTAGAGGGATTCTGN
AGAAATTAAGAAATTCCTATCACTCCTAAAAAAGTGCGGCCGCTCTAG
AACTAG

Sequence 560

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACG
CGTCCGCAAGTTTTCAAATGTAAATACCTCTGTTTAAACAGTCCTTGGACCATTTCTG
ATCCAGTTCACCAGTAGGTTGGACAGCATATAATTTGCATCATTTTGTCCCTTGTAATC
AAGATGTTCTGCAGATTATTCCTTTAA

Sequence 561

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCTTTATTTATTTCTT
TTAGGAATTGCAGGTTTCTAACAAGTAGGGGTGAGGGGGGTGTTACAAACCAGTCACTA
GGCAGGAACATTAGACTCCAAAAGCAGAGAAATGCTTAATTTTCTTCTACCTGTTTAC
CACATTCATGTANAACGTAGTAAAAAAGATGGNGAATCAGGCTGAATCAATCTAAATAA
CAACTTAAGGCTCCCAAATCATGAACCTAGGACCACTAAATCCAATGTCAGACGTGTT
TAAATGGNGCACTGCTCTACATTTTCTATTATGCAAAGAGCTAGAAAATAATGGTAGTG
TCATTATGACATTCCATGAAAATGAAGAAAATCTTTCANGAAAAATTTAGAAAATAAAAA
TGTTTACT

Sequence 562

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCGAGGTGCCAAAGCCTTAAC
TAGATTGTTACTTATGTTTCTAAATCTGNGGAAGCACATTTCTTTTCTTCTTTCT
TTTACTGNTAATATCCTTATTCTCTATTTTACCAGTGGAGAATGTTTAGTATTAATTTCC
ATTTAGCTCAAGATTCAAGAAATGCAAAGTGCTATTTTTATCAAATTTCTGAAAGCCTAC

TABLE 1
92/467

TGTCTTCTGCTTTGGAAGTCCCACAACAGCTCTTTAATTTCTTAAGCCCCACTTTCTC
ATCAGCAAGTTGGTGTGGCAATGGATCATAATAGTTGCTGGGAGGATGAAGTGAGCGGA
CGCGTGGGTGGAAGCTTGACCT

Sequence 563

CTACTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCAGTAATCACATA
AATTCTGCAATCATCTGTTTATTTAGCTTAAGTGTCTTTTTTTTTTATTTGTTGAAGTTGT
TGTTGTTATTNCAGTCTTTTTCTTATTGGGTGACCAGACTTGGTAAAATCTGTAAGAAA
GTTCCATAAT

Sequence 564

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTTCTTCAGATTCAAAT
GCCAACACTAATTTGAACTTCTTTGGGTCTATGACAGTTTGCAAGCCATACAAACCCAAA
GAGCTAATCTGTGATTTCTTAAGTTGAGAAAATAATAATNATAACCACCACTGGAACCTA
CATAGGTTTGTNGNTTATTTAACATGACTTAACCTTTGTTTGTATTTTTTTGAAAAAAA
AAAAAAAAAAGTGACCTGCCCGGGGCGGCCGACGGCCGGGCAGGTGCGNCTCAAATTNT
TNAATTTNTTTTGGAAAGACANGNATTTTTTATTTTGGCCAANGCTAAACTTNACNCTG
GGCCTTTAAAGGGGATTCCNTNCTGGCCTTTGGGCCNCCAAAAAGTGCTTGGGATTNTTN
GGGTNNAAACCCCGNGGGGCCCTAGCCTACCAGTTTTTTTTAA

Sequence 565

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCC
GTGCAAATTTGACTTTGTAAATGGCCCTTGGGCTCTGGGAGGAAAGCAACTGTTGGGCCA
TGTGGTTGTATCTTTAGTTTTGTAAAGAATTGCCAACTGTTTTATAATGTGGGTATATC
TTCCACACTTCCAGCACAATGTATGAGTGATCCAGTTTCTTAGCACCATAGTCAGAATT
TACTGTTGCTACTATTTTTAGCTATCCTGATAGATGTGTAGTGATTTTTATTCTGGTT
TTGAAGCAGTGTCAATTGTCTGGGGTAAATCCTTGAGGTTTGTGTCTCAGTCAAGGGGAA
TCAAGGGACATGGACACACAAGTAGTGAATTTAAGAGTGGAAGTTTAATAGGTGA

Sequence 566

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGAC
CCACGCGTCCGTCTTATTTTTACTCTTAGGCAATGCGGAATATCAATCCCAGCACAGCA
AATTCTCCAAAATGTCAGGTAGGCTCTTATCTGATGTTTTAGCACTGGAAAAAAAAAAAA
AAAAAAGT

Sequence 567

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGAC
CCACGCGTCCGCATATTTTCACTTGTACAATGTGGGATGGGTGCAATTTATTCCATCT
TCACTAAAATAGAAGCAATTCCATAGGTACCATAAACCTATTTTAGGTACCACAAGGTGT
CTTTTACACAGCTCATTTGAATACAGGTGTTCTGAGAAGGGGTTTCTATTTTAAATTA
CCATATCAAATAAATGTGCCTTATTTTTTATAAGNCTTGTTAAATCAGTGTCATATT
ACTGTTTGGGGAAGG

Sequence 568

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATAAGCCCACCCCACT
AGGAACTATGTTAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTACTGTG
ACACCAGGAAAACTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGGTTGG
CCATCAGAAGGAAGCCTGGACAGGTCCCTTGTTTCAAAGGTATGACACAAGGTAACCCGT
AAGCCAAGGCACCCAGACAGTTTCCATACATAGAAAGTTACAGCTGCTTTTATACCCCC
TTGCCCCGCCAACGTAGTTAAGAGAACAGCAGCATAAGCGGCTGGCAGAGGCAAGGAAAG
ACCAGTNNAGAGAAAAAAGGCCATCTATACCAATTCTAAG

Sequence 569

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGAGCGGCCGNC
CGGGCAGGTACACAAACCAGATGTATGCANTGATGCCAAAAGTCATCTNAAAATCCAAG
CTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGATTTACTTTGTA
TACTTCAAAAGATCTGGTCATGAAATTTTATAGCTAATACATAAAGNGCCGAATTGAAATC
CAGAATACAATAGCTNTGAAGGGCCGCTAGAGTGACAGATAACCAACCCATTCTACCTAAC

TABLE 1
93/467

TCAGGTTGAGATTGCTTTAGAACCTATCATTGGGCTTTAAATGGTCCACAAAAAACAC
CTCATGGGCACACTTAAAATAGTTTGCATCCACACTACAGGCTTCTCTGGAGGGATTTA
ATACTTTGGG

Sequence 570

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTATTTCCCTCAGTAAC
ATGTAATTGCTACATTTTTTATAAGAAGGTATGGTTAGAAAAAATGTGAAAGATCACTT
AAACCAAAGCCAGTTACAAGGAGTAATCTCTCCTGTTGGTTTACCTTCACCTCANAACTA
CAAGAATATTACAATACATAGTGAATAGTTGTCTGTAACATTTCTACCAGTTGTTTCANT
AGCATATTGGTCTTGGCATTCTTGGCACTGTGGTTCTGCTGTATTATTTGTGATGTCTT
ATTGTTTGTGAGCTTTTGTTTTTTTTTAAAGAAAAAACAAAACTAAGTG

Sequence 571

TAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGAGGTACCCAGTAATCACATA
AATTCTGCAATCATCTGTTTATTTAGCTTAACTGNTTTTTTTTTATTTGNTGAAGTTGTTG
TGTGTTATTTCAAGCTTTTCTTATTGGGTGACCAGACTTGGTAAAATCTGTAAGAAAG
NTCCATAATTATGGGGAAGATTTCTCTGAATTGGCTAAATTCCTGTAGCTGAAAAAAA
AAAAAAAAAAAAAGT

Sequence 572

TTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACGCGT
CCGCAAGTTTTCAAATGTAAATACTTCCTCTGTTTAAACAGTCCTTGGACCATCTGATC
CAGTTCACCAAGTAGGTTGGACAGCATATAATTTGCATCATTTTGTCCCTTGTAATCAAG
ATGTTCTGCAGATTATTCCTTTAA

Sequence 573

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGAGGTACTTTTACGGC
TTCTGACAGGCCTCAGAAGAACATTCCCTACCCCAAAATTATAAAAATAATCTTGTATAT
ATTCTTCTCAAACTTTTATACTTTTTTAAAGGCTTGGATTTTTAATCTATCTGGAATGTA
TTTTTAAATACTGAGTGAGTCACTTTTCTCCCGACGCGTGGGTCTGAAGACCT

Sequence 574

GAATTGGAGCTCCCCGNGGTGGGGCCGCTCGAGGCCGCTCTGACCTCTTTAAGGNANACT
TATTATGCTAATAGTTGATGCGCCCTTTTGTGNANCAAGTTACCATAGGTTACATGATAA
NTATATATTGTTGNGATGATCTGATTNCCTGNNTNCCCCACCCNTGCAAAACAACAACAA
AAACCTTTACCAGGCTNTATAACANGGGGACCAAACCTTGNTTTTGTCTCATCTTGCCGGA
CG

Sequence 575

AGGTACTTACCCAGACAACGACGCCGCTTACCATGATGATGGACAACAGGCAACTTTT
TTTTGGAGTTTCAGCTTGCTTCCAACAGGGACGGTGAGTGTGAGGTTTATTTCCATTTC
TAAGACGATAGAAGTTTTCAGCCTAAGCCGTATTCTAGGTAAGCAGCTGGATTGCAAGT
TTTGTCTTGGAATTCTCCTTAATGACTAAAAGTTAAAGAATTAAACAACCTAGCTGGGC
TTAAATTTCTTNCTTACCCATTAGAAGTACCCTTGCCC

Sequence 576

TAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGNGGTCTAAGAGACAGGGTCTCACTACA
TTGCCTAGATTGGNCTCACACTCCTGGGCTCAAGCAATCTTCTCTTGGCCTCCCAAA
GTGTTGGGATTGCAGGTGTGCGCCACTAGGCCAGCTTGAAAAATTTTAAATGCATGTGG
TAATCCACAGGAGATCACATTTAGTATATGACCAAGTTAATTAAGAAGNCAAAAAACACG
TTAAATTTAAGCAGAATAAGGCTGGGTTGGTGGCTCATGTTAGTTTTATCCTTAAAT
TGTCTGAGTCTTAGAACACAGAAAAACAAATTTGAATGCATTTCTAACAGCTTAATAA
TTTATATGTCCCATTATG

Sequence 577

GGGGNGGCGGCCGCGGCCGAGGTCAATGCTTCGACCCACGCGTCCGATTTTCAAGTTGAC
TTTTCTCACCTTTAACCTCTTTATATAGCACAGTGCAATCTGGCCCTACTGCCACTTCAT
CTGGGTATCTGTAGCTTGAGTTGTAAAAAAGTGCAGGCGGACCT

Sequence 578

TABLE 1

94/467

AGGTGTCGACTCAAGCTTTCAGATATAGGCATTCCAGAATCTTCTCTTTACGAGTTCACC
TGCTAGTATAATCTCCACAACCTGAATGGCATTGGTTGTTCTGTAATTCCTGCCAAAAGC
ATCACAAGTTGTACCTGCCCCG

Sequence 579

CCGGGCAGGTTACAAGTCGACCCACGCGTCCGCTTCAGAATATCCAATTCATGTGAACTA
CAGGAAATTATAGTTTAGATATTTTTAAATGATTTGCCTGTCACCGTATAACACAAGGGT
GTCATGACCAAGCTAGATCTCTTTACCATATCATTAAATAAAGTCAAATTTTAAATTTGT
GCCCAATTTGGCTGGGTGTGGTGGCTCATTCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 580

GTGAACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTTTTTCTTTTGAGACA
CAGTCTCACTCTTGCCAGGTTGGTCTAAAACCTCCTGGGCTCAAGCAATCCTCCCGCTTT
CAGCCTCCCAAAGTGCTGGGGTTACAGCCGTGTGCCACTGTGTCTGGCCCTTTTCTTTT
CATAGGAGAAGGGTTGTTGACTCCAGGAAACGTACCTGGAACCAAGAATGTGAACTCA
AGGACCCCGCCTGTTGGCAGCTGCATTTACTTGACTCCTGTTCACTGTTTCTTAGCCTT
GTCCTTTCTCTCCTGCCAGTTCTAGGGGACACTGCTTCTCCTGGTTGACCTC

Sequence 581

CCGGGCAGGTACCCTAAAACCTAAAGTATAATAAAAAAAGATTATTTCTATACTTCAA
AATCAACAAGATTTGATTGCATTTAAATTTTTCTGTCCATTTGTTCTTCTATGTAATACT
TTAAAAATAATTGGCATAAAAAATTCAATCAATTCATAAAAGTCCAAAGCAAAAAAACA
ATCTACTGACATCTCTTGAGGAAGAAATGATCAGGATTGACATTAATGAACCTCTCACA
GAGACCACTACACACACACACAAAAAGAAGGATGGGTGAATGGATGCAGAGAGAATTT
AATAAGACTGAAATGATGCCATACATGCTTTTAAAAAATAAAAAAGTATTAAATTTTAA

Sequence 582

CCGGGCAGGTACTTATACTAGAAGATGCTCCAAGGTTTCAGAAAGGAATTAATTACTTTC
AATTTGCACAATTTAGAACAAATATCTGGCTTTTCCCTAAGCTTAATGATTTTCCATTTT
ACACAACTAAAATATAATAGCATTATTTTATAATCAAGTTTAACTGATGGTCTATGATAG
TAGAGCGATTTAGTATTTTGACAAAAATCTTATGAGACATGAAGTCATTCAATTTGCCGG
ACGCGTGGGTGCACTCAAGCTAGACCT

Sequence 583

AGGTGCGCCATCACACCCGGCTAATTTTTTTTGTATTTTATAGTAGAGACAGGGTTTCACCA
TGCTAGCCAGGATGGTCTCAATCTCCTGATCTCGTGATCCGCCCACCTCAGCCTTCCAAA
GTGCTGGGATTAAAGGCGTGAGCCACCACGCCTGGCCAGGAGATTCTTAATTATTTCTGA
ACTCTATCAGTTTTGTATTAGGACATCTTATTTAATATTATCAAAAGATAGTTCTCTTA
GAGGCATAAATCAGTCAATCAACAAACAATAGGCAATCACGGACGCGTGGGTGCAAGACC
TGCCCG

Sequence 584

AGGTGTACAAGCTTCGACCCACGCGTCCGCATTTTTCTGGTGTTCCCTCTTACGTGCACA
CCCCTTGCTCCCCTTTGGGTTGACTTATAATCTGACTTTTGTGACAGATGTTAGGAGGTG
GAGCAAAGGAATTTGAGACCAATCAGTTAAGAGACTGCTGTGGGGTAAGAAAAAATTA
GCCTCTTAAATTAATCTTATCAAAGGAAAAAAGTTGGAAGCACATGATAGTATAACCA
GAAACATGACACAGAAGAATTAAGGGAAGAACCTGCCCCG

Sequence 585

CCGGGCAGGTGGAAGGTGGGTGGGGAGAGGGAGGCTTATTTGTTGCTGCAGTGTAACCTA
AGTGAAACCTAATTCATATGACTCAAATAAGGTATATTTGGTTAGATCTAGGTGAGTTC
TACTTTAGAGGAAATCCTGGTAACCTGTTGTTTGTGTAAGTTATAGCTGTAATTAATTT
TCCCTGTATTCAAAGCCCCCAAACCTGCATTCAGATACTATGCATTTAGACTTCCTTAG
GCAAAGTCAAGGCAACAAGCTGATGATTCTAAGCTATTATTCAAGGAGTATCTACCATCA
TAAAGGTGGTTTAGTCATATAGATAATATCAATCAATAAT

Sequence 586

CCGGGCAGGTCTTCGACCCACGCGTCCGTGATTGCCTATTGTTTGTGATTGACTGATTT
ATGCCTCTAAGAGGAACCTATCTTTTGATAATATTAATAAGATGTCCTAATACAAAACCTG

TABLE 1

95/467

ATAGAGTTCAGAAATAATTAAGAATCTCCTGGCCAGGCGTGGTGGCTCACGCCTTTAATC
CCAGCACTTTGGAAGGCTGAGGTGGGCGGATCACGAGATCAGGAGATTGAGACCATCCTG
GCTAGCATGGTGAAACCCTGTCTCTACTAAAAATACAAAAAAATTAGCCGGGTGTGATG
GCGACCT

Sequence 587

AGGTACATTGTTAGACAAGTGTTTATCACTAATCTGGAATACATCATCTTCAATAAGGCT
CTTGTTTTCTCCAAGCTGCACTGCTCACACTGCTCAGTTTTCTGTTAAGCAACCTGCTC
ATTATAGTAGAGCACCAAGGTGATCTGTTCTTCTGTTCTTCAGAAAGTTCACATTTCTTG
TTGCAACAGGGCTACATGATTTTAAGATTCCTCAAAGTCAATACGAATTAACATTATTTT
CCATTTCCATTCTGTATATCTTCACATTCCATAAATATAATACTCATGTATACGTTAAAT
TTCTTATAAGTTCAACACATTGAAAGCTAAAATAAAGACTTCCTACTAG

Sequence 588

CCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGTCATCTCAAAATTCCAA
GCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGATTTACTTTGT
ATACTTCAAAAGATCTGGTCATGAAATTTTTAGCTAATACATAAAGTGCCGAATTGAAAT
CCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACCAACCCATTCTACCTAA
CTCAGGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAAATGGTCCACAAAAAACAC
CTCATGGTCACACTTAAATAGTTTGCATCCACACTA

Sequence 589

CCGGGCAGGTGACTTGGCTGTGAAAAGTGCTAAAACAGATAAAAGACTATACTGACAGGC
AAATGGAGCCTGTTATGACACTGACATTGAAGGTGAAAGGAGAATCCAGTTCACATTAGC
CAGGGTCTCAGGGACCAGGTTTTGAGGCAGTATTTCTGCCTCTTGAGGACAGGGCAGAGC
AGGTGGGTAAAAAGCAAAGAGACCAGGGAAGGGGGACTAAAAGTAAGGGAAACAGCATCT
GAGGAAAGGCTCCTCTGACTGGATTTTCACAAACATTATTTATTAACCTCACTAAACAAG
GATAATGGGACAAAACAGGGGCAAGCTGGAAAACCAGCAGGGGTATTTGGCAG

Sequence 590

CCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAA
GGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCC
GTGTTGGTCACTGNCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGTTGGAGCAA
GTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTG
GTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGC
ACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCCCAGGAC

Sequence 591

CCGGGCAGGTGGAAGGTGGGTGGGGAGAGGGAGGCTTATTTGTTGCTGCAGTGTAACCTA
AGTGAAACCTAATTCATATGACTCAAACCTAAGGTATATTTGGTTAGATCTAGGTGAGTTC
TACTTTAGAGGAAATCCTGGTAACTGTTGTTTGTGTAAGTTATAGCTGTAATTAATTT
TCCCTGTATTCAAAGCCCCCAAACCCTGCATTAGATACTATGCATTTAGACTTCCTTAG
GCAAAGTCAAGGCAACAAGCTGATGATTCTAAGCTATTATTCAAGGAGTATCTACCATCA
TAAAGGTGGTTTAG

Sequence 592

AGGTCAAGCTTCGACCCACGCGTCCGCAGCCTGGGTGATAGTGAGATCCTGTCTTAAAT
GAAGAAAGAAAGAAAAAAGAATGAGAAGGAAGGATATTAATTGAAGTAAGAGCACATTT
GATTACAAAATAGAAGAGGAGTAAGTGAGAACTAAACGGGGAATACAGATAGCAGAGATT
AAATAGGCTATAAGAAAAAAGGGATGATAATAAGACCATGGTAGTACCTGCCCG

Sequence 593

AGGGCCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGTTTA
CAATATGGTGACAACAGATAACTGTAAAACTTCTTTTTCAAATAGAACCAGCAGGAGCA
TGCATGGAACACATATACCAAACATCTTTCTGATAACATTAAACATTTTAAAGATGTT
AAATGTTCTTTTCATTGNGGTGCTTCAGATTCTGATTCTAGAACTTGTGTGTGTGGAAC
CTGTGTGCTAACTATTCTGTTGGAATTTACCAGCAAAGAATTATCTAAGAATTTTCAAAC
TAAATGATGGGGGAAGGAACCTAACATTTTTGCAGNCCCTGGAAATGTAAATGTTGTACC

TABLE 1

96/467

Sequence 594

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATAAATAGC
ATTCCCACGGTGACCACAAGTCTTGGAATCAGTTCAGGTGTCGTCGTGGCCGTTGACAC
CGCTGCCTTCTGACGGTAAATGTATTGTAGAATTCATGTTGTTATCAGGCTTCAGTTTCC
TCATCTCTAAAATGAGAGGATTGGATAAGTTAGTAGTTTTCTAATTTTTACTTTTAATCAG
TGGCATCTCCCATTTATTTTCATTTGAAATAAACTTTTGAATTTATCTTCTACCTAA
ATAACATATTTTGTTTTATGTTTCAAGATGAAGCTCACACTGAGTTGGAAAAAAGGAAAA
AGCAAAGGATCAAAGCTG

Sequence 595

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGCCAAAGCCTT
AACTTAGATTGTTACTTATGTTTCTAAATCTGTGGAAGCACATTTCTTTTCTTCTTCTT
TTCTTTTACTGTTAATATCCTTATTCTCTATTTTACCAGTGGAGAATGTTTAGTATTAAT
TTCCATTTAGCTCAAGATTCAAGAAATGCANAGTGCTATTTTATCAAATTTCTGAAAGC
CTACTGTCTTCTGCTTTGGAAGTCCCAACAGCTCTTTAATTTCTTAAGCCCCACTTT
CCTCATCAGCAAGTTGGTGTGGCANTGGATCATANTAGGTTGCTGGGAGGATGAAGTGA

Sequence 596

ATGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGA
TTATTCTCTCCATTTAGGCTATAAATCTTTCAGTGTAGGGTGTTTCTAATGTCATATTCT
TCCAAAAAAAAAAAAAAAAAAAAAGT

Sequence 597

CCGGGCAGGTCTTCGACCCACGCGTCCGGCTCTCCAGTTTATACATGAAGAACTTTCCG
AAAGTCTTGCAGCTTGTGGAGAGCAGAGCTGGAGAGCAGGCTAGTCTGATTTTAGAAGGG
AGTTAACCATTACATAACCTGCAGGTGGCTTCTCCCATACCTGCCGTGGGATAATATGG
CTCACTTTTACTTCATTTACAATATTTAATAAGTGCGATTTTAGACTTGAGAAGAGAAT
ATTTTCTGCTAAAATTATCCCCACTAGAGATAATCACCAGTGAATTAATACACTGCAGCA
ACGGAACCAGTCAGCTTTTTTGGTAATCATTCCCTTCT

Sequence 598

CCGGGCAGGTCTTCNACCCACGCGTCCGGCTCTCCAGTTTATACATGAAGAACTTTCCG
AAAGTCTTGCAGCTTGTGGAGAGCAGAGCTGGAGAGCAGGCTAGTCTGATTTTAGAAGGG
AGTTAACCATTACATAACCTGCAGGTGGCTTCTCCCATACCTGCCGTAGGGATAATATG
GCTCACTTTTACTNCAATTTACAATATTCAATAAAGTGCGATTTTAGACTTGAGANGAGA
ATATTCTTCTNCTNAAATTTATCCCNCTAGAGATAATNNACCAGTGAATTNATACACTGC
ACNNACGGAAACCAGTCA

Sequence 599

AGGTGCTTCGACCCACGCGTCCGGTATTTCTCTTAAAGTTAATTTTGATAGATATTTATC
TAGATGCTTTCTTTTTTCCCTTGCCATAATAGCTGGCTTGTAGAGAGAGTTATGTTTGAA
AAGGCTTGCCTTTTTTCCGTCGCTCTG

Sequence 600

AGGTCAAGCTTCGACCCACGCGTCCGTGATGCTGGCTTCCCGGTCAAAGCTGAGGAGTTT
TGTGGTGCTTCTCAGGAACCTTCTGTACGGAAACCATTCACCCAAAATTGCAAGACC
TTTCATAGAGACTTTCCTCAGGCCCTCAAGAGTATTTGAGTATCTGGAGGAGGATGCCCA
GAAGTCCNCACAGGAGGGGGTGCTTGGGACCACACACTGATGCTCTTGNCATTCAGACTC
TGAGAAACATGCCGCGTGATGAANAAACCATCCCAATTANANGAAGCTAGCTGNNTTNC
TTGNAGCAGCTTTACCCCAATT

Sequence 601

CCGGGCAGGTCAAAGCTTCGACCCACGCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATT
GTATTACATGCTGGGAGCACAAAGATGAATAATAACAATAGGTTACAGAAAAGATGAAT
TGATTGAGAGAAAAAGAACCTCCAGGAGCCCTCAGCGTAGTAGGGGGTTGGTGTGGAG
GGTGGAGGAATGAAAAAGGNCCTGAAATGCANGCAGAGAAATGATGAAACAATTCCNGGG
GCTGCGGNGAGGTTANATGAATATCTTTACAGCAGCCTNGAAGACTGATCANGTTACTAT

TABLE 1
97/467

ACCCTCTCTTCTGTCCACGTGCATTNA

Sequence 602

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCATTTATTAAGGCTTGTATATGT
TCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATCTTAACCACAAGGCTGAGA
AGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTAATCCTCCAGAGAAGCCTGT
AGTGTGGGATGCAAACATTTTTAAGTGTGACCATGAGGTGTTTTTTGTGGACCATTTTA
AAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGTTAGGTAGAATGGGTGGTTATC
TGCACCTAGCGGCCCTTCATAGCTATTGTATTCTGGATTTC AATTCGGCACTTTATGTA
T

Sequence 603

ATTGGAGCCTCCCCGCGGTGGCGGCCGAGGTAGCTTGAGTCGACCCACGCGTCCGTTTCAG
ATCCGTTTTAGAAAACGTGAGTCTCTAGCTCAGGAGATTTCCACAACGTCTTAGTAACC
TGATCTTATTCTCATGTTAACCTTGGCAGTGGGAAGTTCTTCCTGGTATCCTGCCTAAT
TACTGGAGTTGGCATTATGCCATTTCCCCCTAAGGCGTGGCTCTTGGACCAGTATCAC
CTGAGAATTTGATAGACATAGACCCAGAGTTACTGAGGGCAGGTGCTCTGTTTTGGGGAC
CAGCAATCGGTGCTTTAGCAAGTNCCTTGGGTGATAGGGGTTNTGGAACTACTGCTCTA
AAGCATNATCTGTTTTTGAC

Sequence 604

GGTACCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTGAGGAAAAAGAAGGTC
CTGAAAGCGTNTAGACAAAAAAGACTACTTGTAAGTTGCAAGAATCAGAATGGCATTGG
ACTTCTCAGCTTTCTCATTAGAAAGTTTAAGATCTGAAGCAATCTTTAACTCGTGAGGA
AAATTAAGTCTAATAAATANTTTTCTTCTAGCCCAACAATCAAATGTGAAGCTAGAAT
AAGCATTTTCAGGTAAAAAAAAAAAAAAAAAAGTGCGGC

Sequence 605

CCGGGCAGGTACANNTTGTGATGATTTTGGCAGCAATTACAGAACCAAGGCCATTCA
AGTTGTGGAGATTATACTAGCAGGTGAACCTCGTAAAGAGAAGATTCTGGAATGCCTATAT
CTGAAATCAGAATCCTAGTAGTTTGTAGTTTGCCTCTTCTAGAAAGTTCAAGAGACTCAA
GTCATAGGCTACAGATGTACCTN

Sequence 606

AGGTCTTCGACCCACGCGTCCGCAACTGTTGATCTAACTTTTCCACTTGAATGTCTAATT
GGCAAATCAAACCTAACATGTTCCAAACGAGTTCTGAAGCACCCCTCTGCCAAATCTAC
GTCTCCACAGCCTTCCCTATTTCTCTACCTGGTACCTGCCCGGGCGGCCGCTCGACCTG
CCCG

Sequence 607

AGGTCTTGAGTCGACCCACGCGTCCGGAGATGTATACGCCACTATAGGAACTATAAGAAA
AAGTCAAATGGAAATCTTATAAATAAAAAACCACAGTCACTATAATGAGGAAATACTTTGA
TAAGGTGTCAGTGAACCTAAAAATCAATCAATAGAACTACTCAAACATAAACTCAAAGA
GAAAAAAAAAGATGGGAGATAATTATTTTTTAAGAATTGGTCATCAAATGTAGCAACAA
GTTTGCCTTATCCTATATCATTTGAATTTTCAAAAAATAAGCTCATTATACAATCTTTAA
AATATTTTGAATAGAACTGTTTCATGTGTTATTTGT

Sequence 608

AGGTCAAGCTTCGACCCACGCGTCCGGGGAACCTTGTTCAGGTTCTTTTTAGGCAACCC
AAGCCAAGACAACAAAGTAAGATAGAGCCCCAAATGTGGTCGTATAAGGTTTTTCAAAGA
AAGTAACACTTGAGTTAGGTCTTAAAGTTTACCTAAGAACTGCCAGGTGGACAAGAA
GAAAGGGTGTTCCAAGTAGAAATAATAGCATGGACAAAGGCAATGTAGCAGGAAAAGTCT
TCGTAAATTCAAGGAATTTCAAGTGTTCACGATGGAAGGAGCAATAGAGTCATTTACTT
GCGGTGGCAGGGGATGTTGGAATGTAACAAGAGTGAGATAC

Sequence 609

AGGTCAAGCTTCGACCCACGCGTCCGTGATGCTGGCTTCCCGGTCAAAGCTGAGGAGTTT
GTGGTACTTTCTCAGGAACCTTCTGTACGGAAACCATTTGCACCCAAAATTGCAAGACCT
TTCATAGAGACTTCTCAGGCCCTCAAGAGTATTGAGTATCTGGAGGAGGATGCCCAAG

TABLE 1

98/467

AGTCCGCACAGGAGGGGGTGCTGGGACCACACACTGATGCTCTGTCATCAGACTCTGAGA
ACATGCCGTGTGATGAAGAACCATCCCAATTAGAGGAGCTAGCTGACTTCATGGAGCAGC
TTACACCAATTGAA

Sequence 610

ACTTTTTTTTTTTTTAGCTTGAGTCGACCCACGCGTCCGGGGATCTAGATCACGAGCG
GCCGGCCGCCCGGGCAGGTACGGAAGCCATGCACTTGCCTCTCCTTCAGAGCTGGGATTT
TTTTTCATTTTGTCTGGCTGTGAGCACACACACGCCACAGGTGCCTAAGCCTCTTGTATG
TGTGTTTTGAACTGTGTCCTCTGAGTTCTGTGTCTGGGTGCATGCTCTCCTCTTAGCGTG
GGTCTCCTTCCCCTGTGTAGCACTTCACAATGTTAGGCATTTGTCTGTGATAGCAGCTGT
TCAGTAATTTCTACTT

Sequence 611

AGGTTTCGACCCACGCGTCCGGAATTTATCTGGCCAGGCATTGGTAGTTTACAGAAGTCT
ACCAGATGATTCTAATGTGTGGTCAAGACTGAGAACTATGTGTTTAATTGGGTTTATTTT
AAGAATACTGTAAAAATTTTATCTAAATACTAAATATCCATAAAAGAAACCTCGGTAATC
AGGCCAGGTTTTTGTGTTTTTCCAGATTAGCCCACTACAGGGGAAAGAGACTTTTCGCAC
TATATCCCAGAGTCTCTGCTCCTGCTTCCAGCCTCAATGCACTGGGCCTTTCTGCTGCCT
TGGAGCACTTAGAGGGATTACAGGAGGAGTGATCTGTGGAGTT

Sequence 612

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCAGCGCCCGGGCAGGTACATACAGCCTGAAG
TTAACCTTTCTATGTTAAATGAAAAAATTTGTCTTTCATCAGGTACAGAAACCAAAAA
CTAAACAATGCAAAAAAATAAATCTAAAAATAAAAGAAATTTTATTTGAAGTTATTC
TGGATATTCGCACCATTTTAGCTTCTGAAAAAATGCAACTATGAAATGAAGACCTCATA
TATTTTCATTTATCAATATAATGTTAAAAGTTTCATTCCACCGGGTGTGGNGGCTCACAC
TTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCATGAGGTCAGGAGATCGAGA
GTATCCTGGCTAACATGGTGAAACCCCGTCTCTCTAAAAAATTCNNNAAAAA
AAGGAA

Sequence 613

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTGTAGTTTTCTTAGCCATTTTTC
AATAGTCTACACAGTGTTTATGTTTCCTTTTATTTGTGTATAGTGAGGTAGAGGGGAGGT
TTTTTTATTCAAATAGAAGAAGCTAAACTCAAATGCAATGTCAGATCTCANAATAAACT
GACCCAAATTTCTGAAACCCAATAAACACATTTTCAATTTGTAATATTTCTTTATTATAGCT
CTATGAAAAAGTAATTTGTGACTTTTCGATCTTAAAGAGAGTTTTTAAAAATACACAGTAA
TTGAAAGAAAAACTACTACATTTTAAACAGTATTTTCTGAAACATAGAATGAAATGC
AAGTATTTTGTGCATGGCAGCTGTTTTTAAGGAACCAATGTTATATATGGNGAATTTTGT
GGAAGACTATGTCTCTTAAATATTTCTTATAAAATANCATGGCTTTTTAATAGCTGGGA
ATCTGANGNNGGATTTCCCATGAAGACCTTAAATGGCTNNGCAGGAATTAAAAAAG

Sequence 614

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGCCTGTAATCCCAGC
TGTTGGGGAAGCTGAGATGGGAGGATTGCTTGAGCCTGGGATACTGATATTGAGGCTGCA
GCGGGCCGAGAATACCACTGCACTCCAGCCTGGATGACAGAGTGAGACACTGGCTCAAAA
AAAAAAGAAAAAGGAAGAAAAAAGTTTAAATCAATGAATGTTCTCATTTCTAATGAAAT
AATGAAACATTATTGGGAGAGTTATAGTCATAATCATCTTACTGCACTATCAATTAATAA
ATACATCATTTTTTAGAGCACAATATATACCATAAAGAATTATTCAAATAGTCTAAATAT
TACGATCAAATTTTTAATAGACTTTGTTACTTAAACTAAACTGTATTAGTCTGTATTAG
TCAGCTCAAGTTGGGATTACACCTGTAATCCCAACACCTAGGGGGGC

Sequence 615

CCGCGGTGGCGGCCGAGGTACACTGTGTAAGTGGTCAAAGATAGACATGGTTTTATTAC
AAGGAAATTTGCTGAAGTGTAATTATAACACGAAGAGATGGGAGGGAGGGGTAAACACC
TAAATGTCTAACAACAGAGAATGGTTCTCTGTTGATACAAAATTATGATACATCAAAAA
GAACAACAATCAAATTTCTCTGAGAATCCCATTACAGTTAAAGGAGCTCCCAGCCAGGT
GCGGTGGCTCACGCTGTAATCACAGCACTTTGGGAGGCCGAGTCGGGTGGATCACGAAG

TABLE 1

99/467

TCAAGAGATTGAGACTACCCTGGCCAACACTGTAAAACCCCGTNTCTACTAAAATACAAA
AATTAGCTGGGCCGTGG

Sequence 616

TTAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGAGGTAAGTGAATAACTGCCAATGCCA
TCTGCCTGTGGCCTTCTCAAGTTTGTCTGCACCTGTGGTTATCCTGACTTCAAACCCGGG
GAGACAGAGGCTAGAAGAGGCAGACAGCTCTTGTGATTCTCCTGTCCAGTGCAAAGAAC
ATCTGGAACCTCTGAGCCCTAACCTTAAATGCAAGACCTNATCTGCAGGTGTTCCCTNATCC
TTTTAGCCCCTCAGTGATGTAAGCAACAAACGTCACCCANCTCCTGGGGCACACTTNACT
CCCAGATGAGCTTGTCTGGATTGTCAGGGAGCCTGGCTCCC

Sequence 617

TAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCGGGGCAGGTACATCACCTGCTGA
GGGACATCCAGGACAAGGTCAACCACTCTACAAAGGCAGTCAACTACATGACACATTCC
GCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGT
TCTCCTCCAATTTGGACCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATG
CCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGG
AGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTNTACCTGAATTTCA
CCATCACCAACCTACCATATTTCCAGGACAAAGCCCAGCCAGGCACCAACCAATTACCAGA
GGAACAAAAGGAATATTGAGGATGCGCTCAACCAACTCTTCCGAAACAGC

Sequence 618

GCCGGGCAGGTACAGATGGGGTTNCACCGTGTTAGCCAGGATGGTCTCGANTTCCTGACC
TCATNANGCATCCANCTCGGCCTCCCAAANTGCTGGAAATTACAAGGGCGTTGAGCCCAC
CCGCACCTGGGCCAGAATCTTACATATTTCTTAAACATCATTAAATATATATTGATTTT
TTACTTTTTTTTTGAATAGGGGTCTTGCTATGTTGCCAGGCTTGGTTTTGAACCTCCTGG
CCTTNANGAGATCCTCCCGCTCTCAAACCTCTCAAAGCAATGGGTA

Sequence 619

AGGTACCCCATTTTATGCCATAAGTCAGGTTTCTCCCTCAATAGCCCTTTGGAACCTCTCA
AGGTCCAGAGTGGCATCAAACCAACTGACACATGAGTTGATACATCATGTGCTGCCAACA
GAGAAATTAGTCTGTGCCAAACTCAGCACAATCCTGCAGTTCAAACCAGAATTTCAAAAA

Sequence 620

ACCAAGATTTGAATCATGCTTTCAAAGCTAATGTGAAGTTAGACATATTTGGTTTCATA
ATCACAGAATTTAAAAACACCAGGTCTGCAATATTCAGAAATCACCATTAAACGCTCTCT
TGACACATACAATCAATTTCACTTTAGATCGCTGATTTTCTTAAACACTGATTTAGTTAT
TTCTGAATACTGCTAGAAAATTCAAATCTACAATTAAT

Sequence 621

AGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCAACCACTCTACAAAGGCAGT
CAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTG
GTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGGTGGAGCAAGTNTTT
CTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGAC
ATCCATGTGACAGAAATGGAGTCATNAGTTTATCAACCAACAAGCAGCTCCAGCACCCAG
CACTTCTACCTGAATTTCAACATCACCACCTACCATATTTCCAGGACAAAAGCCCAGCC
AGGCACCACCAATTACCAGAGGAACAAAAGGAAT

Sequence 622

NCCGGGCAGGTAAGTGGATGACAGCAAGTGCACACATCAAGAGAAAGTTACCATTCAGAGG
TGCAGTGAGTTCCCTTGTCCACAGNGGAAATCTGGAGACTGGTCAGAGGTAAGATGGGAG
GGCTGTTATTTCCCTAGGTCACTCTTACATTCTAGTTCTGGTGCTCTCTATCTGTTTA
AGACAAACCTTGNACACCTTTCTCCACCCCTCCCTTTCTCCCTTGTCTCCCTTGAGAA
AACAACTNCAGTTCTCTGCCTGCACCATGACTGTCGATACGCGGGGGCAGTTCGGCGGTC
CCGCGGGTCTGTCTCTTGCTTCA

Sequence 623

AGGTACAAGCTGTGCACTGCAAGGTAACCACGTGGCCAGAGGCACATCCCTCCCTCACAT

TABLE 1
100/467

ATACTGAGTGGTGTAATGCAGTCACCTTGTCTGCTGGCAAGAGGTGATCGATGGACACAA
ACTCCTCCCGGAACTGCCCCCTCCAGCGAGCTCACTCTGAGGTTATCTGAACTCACATAGC
TTGGGAAACCCAGCTGGGCACGGGCAACATTTGCGTAGTGACCCTTCCAGTCATCGGAGC
ACATGGTCTTCCACGAAGCAGCTGTGAACACCTGGAGCACGGCATTCTGACCACTCACCC
GGACACAGCGGTACCTGCCCCG

Sequence 624

CGGGCAGGTACTTTGCAAGACACGCCTGGCTACGAACAACATGGGACAATGGGCAGCCTC
GCTGCACTGNACAGAGGAAAGGAAAGAGGCCTTGACGCCACTGCCTGGGAAGGAGCAGCA
CATTCTGCATTAACCAGGCATGCCTCACTCACTGCAATCCCCAAACAAGCCCAACTCTCC
GTGTTGATTATTCTTACCATACTCCACCAGAAAGCAGCATGATTTTCTGTCCTCAAATAC
TTCAGATTCCAAGAGAAGTGCACCTTCTAGAGTCTCTACTGATAACCTCAGNCACTTACC
CACTTGAAGCATNAGCACACACTTAAAAAGGAAA

Sequence 625

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATTCTTCCAACCTTTCT
TCTGTGCATAATCATCTAGGTGTGGTGCTTACATTTTCTTTTGGCAGTGTTATCTTAGTA
TCTTCCAGCATGGTTTTCTCACCTGATACTGTAACCATACTTCCATATCCTCAAATGTGT
TGTTTTCTAAATAACTTTTTTTTTCTTTTTTAGAGACGGAGTCTCACTTGGCCAGGTG
CGGTGGTTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCACGAGGT
CAGGAGTTCGATGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCAGGTGTGGTGGC
GCACGCCTGTGATCCCAGCTACTCGGGAGGCTGACGCAGGAGAATCTCTTGAAGTTGGGA
GGTGGAGGTGCGAGTGAGCCGTGATCGCGCCGCTGCACTGCAGCCTGGGTGACAGAGTGA
GACTCTGTCTCAAAAAAAAAAAAAA

Sequence 626

AGGTACGCGGGACATACTCCCTAGGTGTCTGTGAGGATGGTGGAGGGGATTTTCTCCATG
CCGGGAGGCTTCTGGAGCAGGTGCTGCCTCTCGTGACTCTTGAAAGATGCTTGTGAATA
AAGCATACTGGGAGCTGAGCTGCTGTTTAGTAATTAATAATCCTTTCCATTGTTTAGAGC
TCAGCACCTTTGTGCATTCATATTACGCATTCATTTTCGTATCATTGTTGAATTTCTCAC
TTCTGCTACTGCAATGTATGTCTACAGCTGACAAGTCTTCTTGGGAGCCCTACGTAGCT
CTTTTTTTCTTTCTTTCTTTTTTTTTTGGAGACGGAATCTTGCTCTGTCAACCCAGGCT
GGAGTGCAGTGGCGCAATCTCGGCTCACTGTAAGCTCCACCTCCCGGGTTCACGCCATTC
TCCTGCCTCAGCCTCTTGAGTAGCTGGGACTACAGGGTGCCACCACACGCCTGGNTAC
TTTTTTTTGGTAT

Sequence 627

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTCTGCCATGAAGGT
TCTGGGGTGGAGAGGGAAGCAATGTATATCCTACCCATGGTGATTGGTCCGATGGAAGTC
ACATCCTGATGGGAAAAAAGGACTGAGCCAGAGTGGAAGTGTCTAAACCAAATGGGATAA
ACAAGCATGGCATGGAGCCAAAACAATGGCTAAGTCAGAGGTCCTAATGCAGAAGGCTG
GACAACTAGGATGGTGGGAAAGACATGAGCTTGAAGGACTTCCCAAGATAAAGCAGAAC
TAACCAGAAGAGCCTGTTATAGATTATATTGGGGGAGTTTGGGGGGTTTGTGCAGGGTG
CATCAAAAAGCACTCGCATGGAATAAACATATCTTGACAGGAACATATGACAGGTAATT
GAATAGTTTGATTTGAACTATGTAAAGACATGATCCTGATGGTAGAAGGATGGTACCTGC
CCG

Sequence 628

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTGGGACCGAGTCTCACTCTGTGCGCCAGGCTAGAGTGCCATGGCGCAATCTTGGTCACT
GCAACCTCCACCTGCTGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGA
TTACAGGCCCTNACCACCACGCCAGCTAATTTTTGTATTTAGNAAAGATGGGGTTTCAC
TGTGTTGGCCAGGCTGGTCTCGATCTTTGACCTTGAACTTTNACATAAACTTTACAT
TTCCATGACAAAGTTTTAGCAGTAACTTCAAATTTGGTCTTATTCAACTCCAACATTAA
CTTTGTATGTACCTGCCCC

Sequence 629

TABLE 1

101/467

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGATCC
AGGATGTGATGGGATCTTAGGGCTTGGCTGGAAGGTTTCTCCAGTCAGCCATCTAGCAGA
GCTGCAGATCTGGGCTGGGCTGTTGGCTAAAGTGCTCTTCACAGACACCTCATTGGGCTC
TTCCTTCAGCTTCTTCACTTATTTCTTACTCAGTCACTACTCAGCTCCTTGTCCATGTGT
CCTTGAAGCCATCCTAGGTCTTATTCTGATTCTGAATTCTTCAGTCACCCATAAGCTTCT
CCTTACCCCGGGAGTCAGTGGGTGTGTGTTCCAGGTGGACTTAACCATTTCTTCTCCTTT
ATGATCCTTTCCCTTGGGTGGACAAGTGATTTGGTTGTAAGGCCATTTTCAAGTTGC
CTATACATTGATAAAAGAAATCCCACTAACGGAAGTAGACTGCATGCCAAATTTCAAGTGT
CTTCTCCAGGGGCCAAGGTTGGACCCANAAGTGCATGGG

Sequence 630

CCCCGCGGTGGCGGCCGCCCGGGCAGGTACATTATTGCTTCCTGGGAGAGCTGACCATGA
GTCAATTGGCCCAATAANTTATNAAATGAAAACCGGCCATCATCTGCATCTTATGAGT
GCACGTCATCAGAGATGTCCACTCCAGTTACAAGAAAAGTCCTGAGGGCTTTCTTGGAGCC
TGANGGGCGCTGGAGGTGAGACCTGGAGGTGAGCAGGAGTTAACTAGGATGAGGGACNGG
CGCAGCATACAGGAAAAGCTGCCTGGGGGAGAAAAGGACCAACAGCAAAGACTGAGAAAAA
AATGCTGTTGTGACCAGGGTTCAGAGCGGGCATGGAGGACTGAGGGTTTCAGAGCGGGCAT
GGAGGACTGAGGGTTCAGAGCGGGCATGGAGGACTGAGGGTTCAGAGCGGGCATGGAGG

Sequence 631

CCGGGCAGGGTACTAAGGACAAAAAGACATTTATTCTCTTTGACCCTTGCTGCCAGNACA
GAAAATGACTTCACCCAAGGACACAGCACTTGCGGGTGGCCTTCTCCACCTCCAGCTATT
GCTTGGTTTCAGGTGACCACTCCCTTTCTCTTCTCAGGCCTATGGGTGGTAACAAGCTCC
CATCCACTGCTAGTCTTAGACATCTTACTTTCTTCTGATTGATNCCCTTGACTCTGCCCA
CATCTTTTAAAATATCCCATATTAACCTTTTACACCCCTTTGAATGTGTCCTGCTTCCT
GCTGGGACCATGACTAGTCTCTTCTAGTNGGAATCCATATCACCTTCTGTGATGTAGTCT
CCAAGTCAGGCAGNCTCATTTCAACTACAGNCTTTCTTTATGCTTCTCTTTTCTTTCT
GGACTCTTACCTTTCTTTTATTTCTTACTCAGCAACAGTGTCTGCCCATTAATAATGCACC
TTTGCGGNGGNGGTTNGGGTATCTTATCTCTCTTATTCTTCTTCTTCTTCTTCTTCT
ACTGGCATTGCATGGGAATTTGGTT

Sequence 632

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGACATACTCCC
TAGGTGTCTGTGAGGATGGTGGAGGGGATTTTCTCCATGCCGGGAGGCTTCTGGAGCAG
GTGCTGCCTCTCGTGAATCTTGAAAGATGCTTGTGAATAAAGCATACTGGGAGCTGAGCT
GCTGTTTAGTAATTAATAATCCTTTCCATTGTTTAGAGCTCAGCACCTTTGTGCATTCAT
ATTACGCATTCATTTTCGTATCATTGTTGAATTTCTCACTTCTGCTACTGCAATGTATGT
CTACAGCTGACAAGTCTTCTTGGGAGCCCTACGTAGCTCTTTTTTTCTTTTCTTTCTT
TTTTTTTTGAGACGGAATCTTGCTCTGTCAACCAGGCTGGAGTGCAGTGGCGCAATCTC
GGCTCACTGTAAGCTCCACCTCCCGGGTTCACGCCATTCTCCTGCCTCAGCCTCTTGAGT
AGCTGGGACTACAGGTGCCACCACCACCCCTGGCTACTTTTTT

Sequence 633

GCCGAGGTACTTCCCTGAGCAGTCGAAGTGGATGCCAGACCAATGGCCAGNGCTAATAT
NCAANGCAATGATCCCAATGACGATGATTGGAATAAAGTCAATGGCAGCAGTGACAGGA
TCTGTGCAGCAACAGCATCTGCATCTGGTGCAACAGGACTTATTTCAAATCATCAAGGC
CAAAAAGCGATCGGAATGAGAAGGGGGCTTCAACAGCAGGCGGATCATTTTCCCCCATGG
TGAATTTTCAAGACCTCTGACATCCGGCTCCGCTCCACCTCTACCTCATAATTCCCGA
GTCCCAAAAATGTAGATGGCACCACGGAAGAGATAGTAGGCCACAGTGTTACTGGCTTCC
CATAAACACAGCCCTTTCTGGCTCACACGGGCATGACCTAATTAAGAACCCCCGCGTAC
CTGCCCCGGGCGGC

Sequence 634

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAAGTGA
AATCCCTAAGTCAAAGTGTGGCTTATAAGCAGAAATCCTGGTTAGTATTTCAAAGTTCTC
TTAGCGTTTTTCTCCTGCGACTTAAAAGACTTAAAACGTGAAAAGACATGGACGTAAGAC

TABLE 1

102/467

TCCAAACAAAATACATTTCTTTGAACTAAATAGCTCTTAAGTAAGAAAAATTTCTATA
GATCTTCAAATCATCCCCTAAGCAAAATATTCTCTAATTAAGTATTTCTGTATTTCCATC
TATGTTCTTCCCAGGCTTGGGGCTGTTGATCAGACCTATTTTAGGGGTAAAGTTTCTAGG
GGTCATAGAAGATACAGATTTTGACCTGCTTAATGTCAAGAGGTTGCACGGTTGATTTGT
CCAGTTGTGAATTCTATGAATGAAGCTTTTGTCTAAATAAAACGATATTTCCCCTCTGGC
TGCTGTGAGCACCGGGAGACTTGTTTCGGCAGTGCCTGGGTGCTGGGGCAGGGCCCCG

Sequence 635

TGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGGGAGTAAATAAAAGGGTCG
GATTTTGTAGGATTCTAAGGAAGAGGCAGTGTCTGTCCACAGGCTGCAAGGTGAGAA
CCTAAAAGAATGAGATATATTCCATTTTGAATGGCAATCAAAAAGAGGATCTCTCTGT
CAAGTCTTTACATTAATGCTGAGTAACAATCTCAAAAGCCTGCCATTCCCCTTTAGACA
CATGTGGCAAAGCAGAACTGAAGGAATGGCCAAGGGGCTTGAACAAGTAGAGAGACCGA
CAGTCTTTCAAATTTAGGGAACCCAGATACATTTTGGGGGAGCCACTGTTTCCCATT
TTCTGAAAAGTTCTTGCAGGTATAAGAAATAGGAATAGAAATTGAATAGGTTCTGGAGC
CAGGGCTACAAAGGCCCCAGCTCTGATCTGTTAGACTGAAAACACACATCAGATGAAAT
TATATNCACAAAAAGGAGAGTCCCTAAAAACAGCCATTTCCGTCCCT

Sequence 636

AAGAGCACGTATAGCATGGGGGAAAGAACCTAAATGTCTCTCTGTCTGTGAGCTGGTGA
AAAACCCAGCATGAGAACGCAGTGTGAGGTGTGGGACTCCTTCTGCCCTGCAGTGGGTG
TTACGGGCGGTGTGCCCTGGCGAGCAAGCTTTGATTCTTGGTTCTTTGAGCTCGTTTCAG
AGGCTGAGTCCCCACATCAGCTTTAGTTCTTGGACTTCCCTGTATTAAGCAAGAATTAGG
AGAATGGCTGTCCCTGCAGGCGCCTCCCGTAAATCCTGAGCTCTCTGGCGCAATCTGAAA
CTTCTCTTCTGTTTTCTTTGGCTGTATCAGCCGAACCAGGAGAGGCC

Sequence 637

CCGGGCAGGTACCAGGAGAGATCTGAGACANGGTATGAAGTAAAGATTTAAGATTGGAA
GTGGAGAGTGTGATGGACCAAGTGCCTTTCCGGATGGGTGACTTCTGGAATTCTTGTTAGGC
ACAGCGGAGGTTGGTCTGTGGGAAAGGAAGAATATTTCCGGGGTGAGGAGACTTCGGGG
TGTGGGCCGGGTGCCTTTTTAAATTTGGAATGGTGTATACAATAGGGAAAGGATGTTAAC
TTTGCAGCAGCGGGGATGGTGAATATAACCTGATAGGGACCCCTCCATTTTGTGGAAAG
GGGAGGAGGGGTGTGCTACCCAGACCCAGTCTCCTGGNTGTAAGGGTAAGAAAGTGAATT
GGGAAGAATCCTCAGG

Sequence 638

CCGGGCAGGTACCTGGACTCCTAAGCCTCAGGGATTTACTGAAACACCATTCTATTTTAT
AATAATCCTTAACCAAGAATTTTAAGGATCTTAAATTTTTCTGTGGTTCTATTGTTATCT
GATATATAGATGATCTGCTGCCATATCCTAAAGAGCAGATGAGGCCGGGTGTAGTGGCTC
ACGCCTGTAATCCCAGCACTTTGGGAGGCAGACGAAGGTGGATCACCTAAGGTCAGGAGT
TTGAGACCAGCCTGGCCAACATGGTGAACCCCATCTCTACTAAAAATACAAAAATTAGC
TGGGTGTGGTGGTGGGCACCTGTAATCCAGCTACTAGGAAGGATGAGGCAGGAGAATCA
CTTGAACCCAGGAGGCGGAGGTTGCAGTGAGCTGA

Sequence 639

AGGTACCACTTAACAAGGGTTCTCAGCTGTGNGGNCACTGGACCACTGGGATATGCTGAG
CTATTGCTTAAACACTGACTTAAATAAAACAAATATTTTAAATAATGAGAATGCTACTGT
AATTAGAAGGCAATCATTTCAAAGTCTANATGGAGGCCAGGGGCGGTGGCTCATGCCTGT
AATCCCAGCACTTTGGGAGGCCGAGGTGGGTGGATCACATGAGGTCAGGAGTTTGAGACC
AGCCTGGCCAGTATGGTGAACCTCCATCTCTACTAAAAATACAAAAATTAGCCAGGCGTG
GTGGTGTGCACCTGTAATCCACTGAGGCAGGAGAATCACTTGAACCCGGGAAGTGGAGGT
TACAGTTGAGCTGAGATAGCACT

Sequence 640

AGGTACAAAGGTTCAAGTGGTGAGAAGAGGGAGCAAGGCCTTTGGAATAATGAACTCCAGT
TGTTCTCATAGGTGCAGCAGAAATAGCGAGAGGTGAGGATTATGGAGATTGGTAAGGCG
AGATCATCCAAGGGCCTTTTGCTTGGTAAGCCATTTTACTTTAATCTTGAGTGCCATAGG

TABLE 1
103/467

GATTCATTGACGGATTGATACAGGGAAATGAAATGATTTTTTTTTTTTTGGTTGGGGGA
GACAAGAGTCTTGCTCTGTTGCCAGGCTGGAGTGCAGTGGCACAACGTCGGTTCACTGC
AGTGTCTGCCTCCCAGGTTCAAGCAATTCTCATGCCTCAGCCTACCTTGTAGCTGGGATT
ACAGGTGCACACCACCACACCCAGCTATTTTTTA

Sequence 641

AGGTACAAAGGTTCAGTGGTGAGAAGAGGGAGCANGGCCTTTGGAATAATGAACTCCAGT
TGTTCCCTCATAGGTGCAGCAGAAATAGCGAGAGGTCAGGATTATGGAGATTGGTAAGGCG
AGATCATCCAAGGGCCTTTTGCTTGGTAAGCCATTTTACTTTAATCTTGAGTGCCATAGG
GATTCATTGACGGATTGATACAGGGAAATGAAATGATTTTTTTTTTTTTGGTTGGGGGA
GACAAGAGTCTTGCTCTGTTGCCAGGCTGGAGTGCAGTGGCACAACGTCGGTTCACTGC
AGTGTCTGCCTCCCAGGTTCAAGCAATTCTCATGCCTCAGCCTACCTTGTAGCTGGGATT
ACAGGTGCACACCACCACACCCAGCTATTTTTTATAT

Sequence 642

AGGTACCTCGTTTCTGAGGATCAANACCTNAGNGACCGNGTGTGTGTGTGTATTTGTG
TGTGTGTGAGTCCTATTTGGGCCCCGCCTTTCAGCCCTGTCTTGCAGC

Sequence 643

AGGTACTTTCAATTTCTGTGGGATAAACTCCAGCTCCAGTTTCAGAACCCACTCTAATTG
GTTTAAGCCAGGAAAGGGAGAGGGACATGTTGCTGGGAGGCCCCCATCTGGGGCCTGAGC
TTGGAATCAAATCAGAGGAAGGCAACACATGTAAAGTGCTGAGAGTGAAGGATGAAGAG
AGCTAGGGCTTTGTGCCATCACTCGTGCTCTGGACATAAGTGGAGCTGGGATTCAGCATT
ACCTGCCCTGTACCTGCCC

Sequence 644

CGGGCAGGTAAGTCCAGGTGTGAGATGAAGGGGGCCTGGATGAAGCAGAGGGTGAGAG
ACAAGGAAGATTCTGAGGACCTTGTGGCTAGATGTGGGGGTTAAGTCAGGTTCAACTCCT
AGGCTGGATGAATTGGCAGATGGCACATGAACTACAAGAGAATGGAAGGCAGAACCTATT
TTGTGGGCAAAAAATAAATTACATTTTGCAATACTGAATTGAGGGGCTTCTTGGAAGTCC
AGGTGTAGATGTCTTACAAAAATAGAATATTCTGGGCTGGGTGCAGTGGCTCACCCCTGT
AATCCCAGCACTTTGGGAGGCCAAGGTAGGGGGATCACCTGAGGTCAGGAGTTCGAGACC
AGCTG

Sequence 645

GGNCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCAC
CAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCAATTTGGA
CCCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCT
GGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCA
ACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACC
ATATTCCCAGGACAAAGCCCAGCCAGGCACC

Sequence 646

CCGGGCAGGTACAGGGGCTTGGGGGCTTGGCCAGGCTCTTCTCCATCCATGCCACGGGGC
TGACAGCCACAGATCTGGAAGCTCAGGCCTAGGAGTGCAGGCTCCGTTAAGCCCTGTGTC
CAACATCCTGACTCCTAGGGGTGCCAAGATTTGAGTGGCCACTTTCACCTCTGGAGGAA
GTAATACCTAAGGCGCTGATAGAAATAGAACTTCCGCTGCCAGGCAAGGTGGCTCACACC
TGTAATCCTAGCACTTTGGGCAGCCTCAACGCAGGTGGATCACTTGAGGTCAGGAGTTG
AGACTAGCCTGGCCCCAACATGGTGAAACCCTGTCTCTACTAAAAATACAAAAATTA

Sequence 647

AGGTACNTGTTTCAGTCACTGGGCTGANNTGGNNCACAGCACAACTTCATAGCCACTGT
ATGAAGAAGTANAAGACCCAGACTCTTGCTTTATGTTGGTATCAAAAGTCATTTCAAGAT
CAGGCTGATCACTCCAAGTAACCCACTGACTTCTTTACTCCAGCTCTCTGTCTGCTGNT
GACTCANAANGTNACACTTNATTTTCTCCATTGCTGATATAATCATATCTGCAACATAAA
AGTGGGCATTTTCTTTTCTACATCAACAGGCAGCACAAATACCTCTGGTGAGAAGGAAT
TCNAAGAAATGGTTNTTCTACTGACTTGAACAGCACCTTCATCAGCAGCAGATGTCAGAT
GGGAAGGC

TABLE 1

104/467

Sequence 648

CCGGGCAGGTACCACTAGATTGCCTCCCTGTGCCTGGGCAATTTAGAAAAATGGTGGTTT
TCCTTTTCGTTTCCATCTTTTTTAAGACTTAAAAAGTATCTGCTCTCATTCTCCTAGCG
GCCTCCATGCCTTGACTCAAAAAATGCTGTCTTAGTTGACAGCCTTGAAATGAGTATGAC
CCTAGCTCTAGTTGGGTGGAATCACCTCGCATAGAAATAGACCTGGAGGGCCGGGCACG
GTGGCTCACTCCTATAATCCCAGCACTTTGGGAGGCCAGGTGGGTGGATCCCGAGGTCA
GGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAAAAAAAAAA
AAA

Sequence 649

AGGTACTAGTATGAAGGAAATAATATCCACACACTGATACTGGTCCAGCNGAAACCAAGA
CCGCTCCTGGTGCATTAACCTTTTAAACAGAGCANGGACTCANTTCTCTGAAATAGTGCCA
TAAACATGTGCTCCCAGAAAGATAAATATTTGGCTTGCTAGAATTTCTGCNGCTTTTNT
GTAAAGTTGATTATTCGGTATTAAAGAGGAGTATCAAATATGNGTNATGNANNAAAAA
CTTGAAANAGTANNGGACCNNGCTTATCTCNTCATTCTGCACACTNCAANTC
ANTCNTTTCCCATCTTNTTCCCNTCTCTGNAATTTATCACCCCTCCCCCTCT

Sequence 650

GGCGATGGACTCCACCGCGGTGGCGGCCGAGGTACTTACCACAGAGAAAAGCCAATAATC
ACAATATATGTTGTCTTACTGACCCATAACCCATTTTCTGAGGGTGGCAGGCATTGTGCC
CCCCTGTGAGGTGGGACTATATACATATACAAAGGAGGTGTTTAACTGGGTGGCATGTC
TCAGGGAGATGTAANGACTTACCTGCATATCCTGGCAGTNTTGAAATGATAGTGAAGTGT
TCNTANGGCNTCCNCTTGATGGCATAGNCNAAACACCAGNATTTTCTTGGNAGAATGATT
CGGNAATGCTACATAGAAGAAATGGNTGGTGAGCTNTTACTGTGACTGTGCCCATAGTA
AGTCATCCTGGACCCTCTGAATCTTATCCAC

Sequence 651

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGTTTTTTTTTTTTTTTTTTT
TTTTATGATATTCATCTATGAACCAATTTAATTTAATTTAAAAATGACTTCTGATCTG
GCAGATGATTTGGGTCTAGAAAGAAATTGTGCCAGGCATGGNNGGCTCATGCCTGTAATC
CCAGCACTTTGGGAGGCTGAGGNGGGAGAAACCTGTNAGCTCAGGAATTGGAGACCAACC
CTGGNAACGTAACAAGACTTNTTTTTACAATATTAATAATAAAAAAGGCCAGGTGCCG
GNGGTTACACCTGTAATCCCAGCACTTTGGGAGGCCACCAGACAGGTGGATCATNAGGT
CAGGAGTTCGAGACCAGCCTGGCCAACGTGGGGAACCCCTGCCTNTACTAAAAACACAAA
AATTATCTTTGCTTTGNTGGCGGGAGGCTNTAATCCAGCTTCTAGGGAGGTTGAGGCAGG
AAAATCNCCTGAATCTTGAAAGCAAAANTTNCAATNAGCCCNNGGTCACACCATTGCTT
CCAANCTGGGCAACAAAGAGCCAAATTTNTTNAAAAAAAAAAAAAAGGGCCGGCCTTGG
GGGTNNTCCNGGAACCCACNCNTTNTGAGGCCCCACCGGTGGTNNTAGGGNCGAGTT
CAAAACNNCCTTCCACTTTTNGAACCCGTTTTTTTAAATTCAAAAATNCTGGCTGGATA
AATCCGNAGCCCCTTCTTGNGGGTGNGGNNGGANTNTTCCCNCAANNGGGGTGGGTNA
NNCCGAAANCCCTTATTTCCCCTNTGNAAAGGGNCTTTTCNAAAAAAAAAAAAAA

Sequence 652

CCCGCGGTGGCGGCCCGGCCGCGGCAGGTACAGGTAAGGCAGAAGGAAGGAAGGGCAAAGA
AACAAATCCAGGGCCCTGGTTTCTGGGATGACAGGCTTCCCAACACTCATGCCAGGACTA
TTTTCCACCTCGGTTCACTATGGGTTTTTTTTCTTTTTTTTAAATATAATGAATTTTTAA
AATGTGTGTTTGTGCCCAGATTATCCANAAAGAGTTGAAGGGAGGAAAGGNGTGCNTG
GGGTGCNTGGGANTTTTANCCCTCTNTCCACCCNGATTTCTAAGTTGGGGGGGGCATCCA
AACAGCTTCACCCANGTGCCCAGGCTNTTTTTGNTNTCCAAAGCCAACCCCTCCAGGGC
ANGGANGGGTGAAGNTTAGGAGGGCAAAGGTTAGCCTGGAGGCTGCAATTAACAAGAATC
AAANTGGGGTTTAAAGATTCTCACACCCAGTTTGCTAATTTAGCTGGTCTTGAGAGG
TGACACCTAGTAGGACAACATGGNTTTTNGGGCAGGGCTGGGGTGCTGGTCTCTGCTTCT
TAGGGTAGAAAGGAATCATACATTGAAAATGCTTAAATCGATGGAATGATTTATGTTCT
NATCTTTTCATCTTTTTCTGNGTGGCTGGTTTTCTGCCANCCTTACTTGGACAAGCACCAT
TCTANACCTTTCTNTAGGCATNTCCNAGAANGNGAAGTNGAAAGGAAGAAAAAACTT

TABLE 1

105/467

ATTTTTNNGNCCAAAAATTNGGCAAAAAAAAA

Sequence 653

TCCACCGCGGTGGCGGCCCGAGGTACGCGGGGGCCCTTCTATCTCAGGATGTTTGCACTT
GCTATTTCCTTTTCTTAAAGGCTCATCCCTAGATATTTGCATGACTGGCTTCCTAATTTN
NTGTAAGCTTTTGCTGAGAAGTTACTTTACCAACTGTCATTGAGGTTTTCCCTGAACATC
TTAGGTAAGATAACAAGCTCCCTCCTTTTCTTTCCTCACTTCTTGGTATTCCTTATCTC
GTAACTTTTTTTTNNGGGGGGATNGANACTTNCGTNTTGNTTTTGTTGGCCAAGCTTGGA
GTGCANNGGGTGCANTCTTGGCTTNACTGAAACCTCCACCTCCCGGGTTTAAAGCGATTCT
TTCTGCCTTNAGCCTNCCGAGTAGCTGGGACTACGGGCAAGTGCCACCACACCCAGCTAA
TTTTTTGTATTTTAAAGTAGAGGTGGGGTTCACTGTGTTAGGATGGTCTCTATCTCCTGA
CCTTTTGGGCCACCCACCTCGGCCTCCAAAGTGCTGGGATTATAGGTGTGAGCCAGTGCTN
CCCGGCCTCTCATAATTTTCTTAAATT

Sequence 654

CNAATTGGAGCTCCCCGCGGTGGCGGTGAGTTNGTCTTAGAGATACCCATGAGGTACCT
ACTCAAATGGGGCTCAGAGTAGCCTTGTCCTTCTTGTCCAGTGGGCGCAGCTACAGT
CTNNTGNNNGGAGTGACTGGAGGCTGTCCACGTCCTCACTTCACTGAGGCATTCTAGT
TGCACCCAGCACACTTTCTAGCTTTATTTGCCTGGAGGGGAAGATTCTCCAGAACCTTGT
TAAGATGCACAGNGNGGGCCCTTGGACTGGCAAGTGTTGGCCTTNGGCAGTCCCTNGGAGC
TTGTTAGGAATGCAAATNTTAAGCTTCTTCTACTGNATCTAAAGGTTGANTTTAAACA
AGATCCAGCTTGTTTCGTTTCACATGAAAGTTGAGGCACACTGCTCTAGAAAGTTCTTTT
ATCTTTACTGGCCACCAAAGTAATCAAACCTTGNGAAGTACCCTCGGNCCGCTCTAGAA
CTAGTG

Sequence 655

GCTCCCCGCGGTGGCGGCCCGCGGGCAGGTACGCGGGATATGAAGTGAGGTTAAGTCAGA
TGGAATGGCAGTGGACTACTGTTTTGGTTAATAAATCGAGATACCCTTAAGAGTTGTGN
NCTGAACATACTGTCTTTCTTTCCCCAGTTCCATGTCACAGCACCTGCCTAATAATAGGT
GCTCGAAAAACATCTGTTGAATGAAATGAATTCTTTTGTGTCAGTAGGGCAAAGAAGGG
TAGAGAGGAACNACTTTGCCAAGCTGATNTGTAAATGTTGCAAAAGGGTTTNGGCCAGAA
AATTCCNANAACCCATTNGAGAGGCAATACATGTTAAGGGACCTNTAAGATGTTTCACAA
CCTTGGAATAATTAAGAACTTTCTACTGNTTACTTATTTCCCACTCCTGGCTGCC
CCTCTTGGGTGGACTGCCTNCTGTTGGAGGGAATACTGNGTGAGACACATCTTTTAGTAA
AACAGAAATGTGAAACCACTTGAGAAATCACAAGCACACTGTTACCAAATAGGTCTTG
ACTGGCTCCCTTCTGAGGACAAATGTTTTGATAATGTCTGTGAGTAGATTGAGTTCCC
TATTTCTTTTAAAGACTTGATATTTAAGAATACTGGTCTTTTGGCCAGCATCGCAAN
GAAGTTTTTCTTTAACTTTTGGGCCAAAAAAAAAAAAAAAA

Sequence 656

CGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACAGGATGTTTTCTAAATTTTAAAGT
CAAATCTTCTTGACACATACCTATTTTTATTTGTTTTGGTTCTCATCTCTGTGAACA
GAGCAAAGCATGCAACCATTGTAACACTTTCATTTGTTTTATAAACTCAAGTTCTAGAG
TTGGATTTCTGATTTGCATAACTCGGCATAGTGTAAGTGCTTGTAGTTTTAAACAGAAA
AAGAGGGAAGAAATGACNATCCANAAAAAAGATCAAATCTTATGACTGTAATTTATTA
AGGNATCCAATGGAATCTTTCCCTTTTCTTTCTTTTTTTTTTTTAAAGAGACAAGC
TCAAGTTCCATAAGCTGGGAATGCAGTATCATGATCCATAGTTCACAGCAGCCTTCAACT
CCCTGGGGTTCAAGGNGATCCTAAGAACTTGNGGGCCTCAAGCAGTCCTCCTGCCTCAGC
CTGCCAAAGTGCTGGGGATTACAAAGCATGAGCCACTGCTCCTAATTCTTAAGAGATA

Sequence 657

GAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCGCGGTGGCTCATGCCTGTGGTCCCAGAAC
TTTGGGAAGCCGAGGCGGGCGGATCACGAGGTGAGGAGATCAGGACCATCCTGGCTAACA
CGGTGAAGCCCCGTCTCTACTGAAAATGGAAAAAATTGGCCGGACCGTGGTGGCGGGCGC
CTGTGGTCCCAGGTGGCTGGATACACGGGTGTGCACCACCATACTGGCTGATTCTTGAT
TTTTGGTAGAGATGGGGNTTGGCCNNGTGGTCCAGCTGATCTTGAACCTCCTGCACCTG

TABLE 1
106/467

CCTNGGCCTTCCAAAGTGTTGGGATTACCGGTGTGAGACACTGGCCCCTGGCTATATTTT
ACTATTTGGAAATCACAATGCATCTTAAAATTGATGGCTTCTTGCAACCACTTTCAACCA
GGTGCCTGTCATGATTTAAGTGCTAGCATCAAGGCAGGTTAGTTATGAAGAAATAGAGTG
TGTGTTTATATACTCACACAGTTAGAAATCGACCCTTTTAAAAATTATTTCTTTTGGAA
A

Sequence 658

AGCTCCCCGCGGTGGCGGCCCGCCCGGGCNGGTACCGCGGGATATGAAGTGAGGTTAAGT
CAGATGGAATGGCAGTGGACTACTGTTTTTGGTTAATAAATCGAGATACCCTTAAGAGTT
GTGTTCTGAACATACTGTCTTTCTTTCCCGAGTTCCATGTCACAGCACCTGCCTAATAAT
AGGTGCTCGAAAAACATCTGTTGAATGAAATGAATTCTTTTGTTCAGTAGGGCAAAGA
AGGGTAGAGAGAAANCAACCTNGCACAAGCTGNTTGTNAATGTTGCAAAAGGTTTAGGC
CAAGAAAANTTCNAAAACCCATTNGAAAAGCATACATGTTTAGTGGAACCTTGAAAATGT
TTTCACAACCTTGGAATAATTTAAAAGTAACTTCTACTGGTTTTACTTATTTCCCACT
CCTGGCTGCCCTCTTGGGTGGGACTGCCTCCTGTTGGGAGGGGAATACTGTGTGAGGA
CACATCTTTTAGTAAACAGAAATGTGAAACNACTTTGCAGAAATCACAAGCACACTGT
TNCCAATTAGCTTGACTGGCTTCTTNTCTGGGGGGACAAATGTTTNGATAATGTCTGTCA
GTAGATTCAGTTCCCCTATTTCTTTTAAGACTGATATTTAANAATACTGTTTCTTTTTT
GCCACCTCGCANTGGAAGTTTTNTTACTTTTGCCAAAAA

Sequence 659

CCGCGGTGGCGGCCGAGGTACTGGTAAAGGGATAGTCACATAGATCAATGAAAAAGAACA
GAGAATCTGTGAACAGACCATGCAAATATGCCTGCCTGGTTTTTACAACAGTGCAAAAG
CAACTCAGCCAACAAAAGACAGCTTTTGGCCAGGCCGAGTGGCTCACTCCTGTAATCCC
AGCACTTTGGGAGGCCCGAGGCGGGTGGATCAACGAGGTCAGGAGATCAAAGACCATCCT
GGCTAATATGATAAAACCCCGTCTCTACTAAAAAACACACACCCCAAATTGCCCGGTG
TGGTGGCAGGTGCCTTTNGTCCCACTNCTTTGGGANGGTTAAGCAAGGGANAATGGCNT
TGAACCCGGAANGGAAANCCTTGCCNTGGGGCCCANATTTNNNCCNTTNNNCTTCANCT
TTGGGTGNANAAAAANCNGGACTTGGTTTCAAAAAA

Sequence 660

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTGAAGGTGAGCTTTGAA
GATGCAACATGAATTTGACAGTANAGATGTAGGGAGGAAGGAAGGCAGGACAGGTCAGAC
AGAAGTGCCAGGAACAGCCCAGGCCTTTGCAGCCTTCCACACCCCTACAAGACCTGCC

Sequence 661

ACTTAGGGCGAATTGGAGCTNCCGCGGTGGCGGCCCGCCGGGCANGGTACGCGGGGACT
TGACTTAAACTCTGGGGCCCGGGAGGCCCGCGGTTTTCTCCCGCTTGCCGGGGTGGTCC
TCTTCCCTTTGTCGGACCAAGAAGTAAACACTGTGTGGAGAGGGACTGACGTGTTTGA
GGGAAATGGGAATGTACCT

Sequence 662

AGGTACTCCAAGCTCTGAGACCACCTCTTCTGCAAAGCCTTCTGATTCTGCAAAGAACA
GGTAGGCATTTTCATCCTTGGGACCTCACAGCAATTCAGGACACATTTGTGTCCCAGCCCT
GCTTGGCTTGGCTGTCTCCATGAATATACACTTTGTAACCTTCTGCACCAGGCATCATACC
AAGCACACAGTAGGCACTCCTGTGTTTTTGAATAAGTGACTATATCATCACCACATTTT
AAATGCGGAATATATGAGCTACTAGAAAAGACATAAGGGTAGATTTTACATCTTTATTGT
ATCCTAGATATACAAGTCTATTACTGCCTTTTCCCATGTTCTGTCAACATAGCATAAAGA
ATGTGGATTTACCTGTTAGAAATTGAATAAGCGGCCGCTCTAGAAGTAGTG

Sequence 663

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGTTACACGGCAATTT
TNTTAATAACTCCCTTTACTATGTCAGACAAGCTATGTCAAGCGTCTTCTGTATCCTNTA
CGGGGAAAAAAGTTAACCAGAGCCAAATGCTTGCTTTCAAAGATAACTTGCCATC
CTGAAAATATAATTTTACAATTCAATAACACCTTTTGAATAATAAATNTGGCAA
AAATGCCCATGCATTAACAAACCATTTTTTCAGTTTAATCTCTTTATATGTTCAACTTTG
ATGTATTTTAAATAACAAAGCAAAATCAACTAAAAATACAATCTGGATTCCATAGCCA

TABLE 1

107/467

ANGGTTTTATTTACAATTCCTANTAGGAAGGCTTTATTTTTAGCTNTCAAATGGGGNNGG
ACCTATAAGGGAAATTTAAACCGTTTNCNTTGAGTTTTNTNTTTNAAGGGGAANGGGGG
AGGANTTCCCAAATGGGGAAAGGGGAAAAAAGGGGGNAANNCCNTTTTGGCCTTTTNN
GGNANTTTTAAAAAAAANTTTNCCCCCCCCGNGNCCCCCAAAAAAAAANNAANNTTTT
TTNAAAAAAA

Sequence 664

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGTAAGTCTGCTGGTTTTCTGGT
GTTCTTACAAGCTGCCTAGGTCTCTTTTGTCTCAGCAGTTCAGGTCATGCAAAAGTTG
CCAGTTCTGTGAGCATTCCAAGTCAGGTAAGACAGAAAGCCATCTCTTAGGCAGTCCCCA
GAAAAGCTGAAAGGTTGGATATACTTTCTACTCTTCTCTTTCTTCATGAGAGAAAGGCC
ATGTGGGCATTTTCTCCCAATAACACTGAGTTCTGTTGTCTTCTGTGCGGCTGTGCTGCAG
GTTCTCAGGTGCTGCAGTTAGCTGCT

Sequence 665

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGTAAGATTTCTGAAGGGATCCATAGCC
AAAACATGTTTGAAGGCCACTGGGCTCGCTAACTTCTAAAAGCACCCAGTTCTAGCAGA
CATCCTAAGGAACATTCCCAGGAAAATTCCAGCCTAGAACCTCCTGGGGTCTGACAACCT
TAGAGAACAGTGCTGGCTTTGAATGGGCTTGGGGCAGCCTCGAAACCCTCTTCCAGTC
TCCATGCAGGCAGGGGAGCTCCTTAAGCAACACATAGGACATTTCTGGGAGAAATGGGAT
CCCCAACACAATGAACACTATAGATTTAATGGTCTATATGGTTAAATACACAAGGCCCC
TCATTTCAACCCCGCCTGTTCTATCTGATTCTGTACCTCGGC

Sequence 666

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTCTCAGACATTCCTCCAGTGGCT
GAAGTGGCATATGAATTATGAAGTTGGATCATTTGGAATGAATGTAAGAGAATTGCCAAG
GGCTCCTCCTACTCCAGAGAGGAAACCTCATCCAGGGCCATGAAGCCACTTCCTCACCAT
CTGTGTGCTGCTTAAGCTAATGCTGCGGGAACCATGGTTCTTGGGAGGAATCAAGCTGA
CTCTTGGCATGAGATTCTGCCTTCTAGGGTTGAGAGCGGCACTGCCATGGCTTCTCTG
GACGACCCAGGGGAAGTGAGGGAGGGCTTCTCTGCCCTCTGTGCCTGAAGGATCTGCAG
TCTTTCTATCAGCTTCACTCACATTACGAGGAAGAACTCAGGGGAAGGACCGTGATGT
CAAAGGGCAAATTTAAAGTAAGAGGCGAGGACCTTGCTACCCCTGCTTGTGCTTGAGA
GCTTTAACTCACNGGATAGTTCTTATCACTTTGGTGGTGGCACAGGNATATGATAATTA
GTAGTAGCCAACAGATGACTAGTNGTTGTATGTGCCAAGCGTTTTAAAGTTNCCTGTT
ATTAATTTCAATTA

Sequence 667

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACGCGGGGGAAGAG
AAAGCGTGAGGGCTGGGCTGCGGCGGGCTTTAGGGAGTGGTCCCTGGCTGTGGATAGAT
CTGCTGATGAGTCCAGGCCCGGTCCATTCTCCTCGCGCTGCAAGGATGCTCCTGGGATT
TCGGAGAGGCCGAGGAGTCATTTCAAACACATCATCCATGGCCTTTTACCTGCAGCCAG
CGTTGCTCCGAAGGCAGCTGTGCCACGCACACCTCCTCCCGCAGCCCAACCCATCTCC
AGAGAGACCAAGATCTGCTCTGGCAGCAGCCATTCTGGCGACAACATTGAC

Sequence 668

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTGGATAGGAGAGGGAGGAGGG
CTGGCAGCTGAGTAGCCAGAATCAGGCAGACGGTGGTAGCAGAAGTCAGAGGCCGAGGGGA
ATCAGGGAAAGGAGTTCAACCATGGAGGACCTTGCTGGCCAGGTTAGAGACTGTGGACTT
TTGTCTGGGTGAGACAGGAAGTCACTGGAGGGCTGTGACAGAGCTCTGAGGCTGTGAGGC
ACTGCTCTGTGAGTGCATGAGTGGGGAAAACAGGAGCTTGCTGCACTGGTAGAGACCAC
AGATAATGATGACTTGGACAGAGCAGCTGGGAGAGAACTAGTTCAATAACCCTAACACGC
CTCTCCATTCTGCATTTTCCCTAAAAATGTACCTGCCCC

Sequence 669

CCGCGGTGGCGGCCGAGGTACCTGCCCTATCTTGCTGAATGTTTTATAATCTAATAAAAC
TCAGATAAAGACCCAGATGTACACCTGAACAGGAAAAGCTGAAAGGAAAAGATAATTAA
AATATAAATCAACAGAAATCAAGATTTGAAAAGACCTAGAAAACCTGAAGGATTACTGAA

TABLE 1

108/467

GCCAAGCAAGAGGAAATGATAGGATTAAGTAAATCTTGTGTTTAGATTTTTTTTTT
TTTTCAAACGGAGTCTCGCTCTGTCACCAGGCTGGAGTGCAATGGCGCAATCTTGGCTC
ACTGCAATCTCCATCTCCGGGCTCAAGCAATCCTCCACCTCAGCCTCCCTAGTAGCTGG
GACCACAGGCATGCGCCACACGCCTGGATAATTTAAATATATACATATTTTTGTAGAGA
CAGGGTGCTGCTTTATTGCCAGGCTAGTCTCAAACCTCCTGGCTTCAAGGCATCCTCCTG
CCCCAGCTTTCAAAGTGCTGGGATTACTGGTGTGAGCCACTGTGCCGGGACATAAATAG
TTATGCTGTATTGGTTAAGGAATAATGACA

Sequence 670

CCGCGGTGGCGGCCCGGGCAGGTACGCGGGGAGGTCATGCCCGTGTGAGCCAGGAAA
GGGCTGTGTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTCTTCCGTGGTGCCATC
TACATTTTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAGG
TCCTGAAATAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCATT
CCGATCGCTTTTTGGCCTTGATGATTTGAAAATAAGTCCTGTTGCACCAGATGCAGATGC
TGTTGCTGCACAGATCCTGTCACTGCTGCCATTGAAGTTTTTCCAATCATCGTCAT

Sequence 671

CCGCGGTGGCGGCCGAGGTACAAGGAAGGCCTTAAAGACTGCCCACTCTCCTTGTTTCC
CATCCCCTGTCCCTTCTACTTCTCACATTCACTACTATGTGCCCTAGGACAAAATCAAAT
GTGGAACATTTGGTCATGTCTACTTTGTCCAAGGGTGGGAGTTCTTGAGGAATTCAAGT
GGGAAGTAGAACAACCTTTCTACCCTTTCTTCCCTTCCCTTCCCTCCCACTCTACCTAGA
AGCCCATCAATCACTTTGAACTTCTTGAGAAAAAGGAAACAAAAGAAAAAGAAAGGA
GAGGCTGGGTGCGGTGGCTCATGCCTATAATCCAGCACATTGGGAGGCCAAGGTGGGTG
GATCACTTGAGGTGAGGAGTCGAGACCAGCCTGGCCAAAATGGTGAAAACATGTCTCTAC
TAAAAATACAAAATTCGCTGGGTGTGGTGGTGGGTG

Sequence 672

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGACACTGGTGGGG
GAGAGTCCGACGCGCCTGGCTAGGAGCGCCGACCGCAGGGCCTCTACGGACCTTACTAGA
AAAATGAAACCTGATGAACTCCTATGTTTGACCCAAGTCTACTCAAAGAAGTGGAAGTGG
AGTCAGAATACAGCTACATTTTCTCCAGCCATTTCCCAACACATCCTGGAGAAGGCTTG
GTTTTGAGGCTTCATGCCAGAAAGGGGAATGGGGAATGGCTGCTTAACGGCATGTNTTTT
TT

Sequence 673

CGCGGTGGCGGCCCGGGCAGGTACACGATGAAACGGGGGTAAGGAAGGAGAAGAAAA
ACATTGAAAGGCATTTGACAGGGTAAGGTTGATTTCCCAAGACAACCCTGTCAAGCAGCT
CTGAAGGGATGATGAGCCTGGACTCTCTGACTCCTAGATTATGAACTCCTGCAGTGGAC
CATGTCCTATTTTTTGGAGGCGTTGGGGGGAATTGTCTTACGCAGCACCCAAGCACACTG
CTATGCAATGGACCACAGATAGGAAGCAAGCACTGCATTTGGCTCCCCCGCGTACCT

Sequence 674

CCGCGGTGGCGGCCGAGGTACTAAATCATTAAATTCATCCTGAGCTAGTGGCTTTATTAAT
GAGTATCTCACAAATACCACAAAAATTCAACCTGGCCATGTGGAGCAATATAAAATTATG
GCATTTCTTGGTATGTTTTCTCTTTGGCGAGGAGACAACCTTGATCTTGTTTCCAGAA
GCATGTTAATTTGCCCTGCTTGCAGAATCTCTCTGGCTTGAAAGGAGATTATATTCATGG
CAGTCTGTGAATTTTCATTTTATTTCATTATTTATTTGAAGACAAGAGTCTCACTCCAG
CCTGGGTGACAAGAGCAAGACTCCCGTCTCAAAT

Sequence 675

ATANGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGGAGGTACCATGAGGGGAGA
ACCGGCAAGGGGTGCCATTCTAGCATCTGGGTGGGAGAGAGGAGGCTGAATGCCAGGGGA
AACTTCTTGAAAAAGTGATGCTGAGTTAGGACAATTTAGTCAATGAGAAGGGATCTGGC
TGTTCTTGGCAGTGGAGACAACATNTTTAAAGGCATGGGAGAATATCTAAAATTTACCTT

Sequence 676

AGATAATAACATCTGATATCCACATGGGGTCTGGAGGNGCAAGCCACCTTCCTTTCATCC

TABLE 1

109/467

CACGGTCTCACAGCAGCCCTGGAAAGAGGCTGCTCTCTGTTGGAGGCTAAGGGCCAGTGT
TGGAAGGAGCTCGGGTGGAAAGTGTGGTCTGCATGAGGGGCTCCCGTGAATAGAGGAGAG
GGGTGGCNGGTACCTGCCCCG

Sequence 677

TACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCANGGTACCTGCCTC
TGCCAGATACCCCTGAGGGAAGAGGATGTTCTATAACCAGGCCGACAGGTTAGCATTTGT
GAACACAGTTCTGACGTTGTTGGGAGGGTTTGTTCAGAAACATCCCCATGCGCTACT
CTTTCAACCAGAGGTCAAGAAGTCCTTTACTTTTGTGTCTTTTTTGTGTTGTTTGTGAG
ACGGAGTTTCACTCTTGTGCCCAGGCTGGAGTGCAATGGCGCAATCTCGGCTTACCACA
ACCTCTGCCTCCCAGGTTCAAGCAATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATCA
CAGGTGCCACCACACGCCTGCTAATTTTCATACCCGCGTACCTCGGCC

Sequence 678

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTAAGTCTGTGGTATTTCA
CATAATATTAACCAGCTGTTAGCAATGACTGATATATACTTCCCATGAAAATGATGTAA
GGTCTGAAAGGATTCATTTTGACAATTTTATATCACATATTTATTTACCTTAGGTGGT
TCTTTTTAATGTTTTAATTTGGGACCACACTAATTTCTAACTTGGTAACTCATCTCTTAC
CAAAATTAATACCAAGCCAAGAAAAATGGTTTCATGAATAGAATCTACTAGTCTTTTATA
TCTTATAATGGTAGATCACTGATGAGGTAGAATCCATAAGAGCTTCNCTCTCACAGTNA
AAGGTTTTGGTTGTGCATGGATTACACCTGGTGAAAGTTGGTTAGTATTTGTCTAAGTGG
CTTAAGACAAATTTATTTTGATTTGTATTGTGAATGACTTTGCGAANCACCCAGAATTTT
TNCCGCTTCGTGTGTNGTGTGTGTGTGTGT

Sequence 679

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCCACATAATAGCTC
AGTGCATGCAATTTACAAAGTAATAAGTGAAATGCTCCCATAGTTGACTATAACATTTT
CTCATTTTTCTCTGAATTTGCTTTTTAAAAAACTCTTCCCCTTGCCATTCCCTTCCCCAT
TCCAGATTGTAAGTCTTCTTCCAGCTGCATCAGAAGAAGGGGACTTTCCATGTAGGTG
TTATTCTCAGAAAAGGCCAGAAAAGACCAGGTGATGGTGGGGATGATTTGCTCCAAGCAT
AAAAGAGAATTTGTGATGGTTTCAAGGAAGTGGAAAATAACGAGACTGGAAAGAAATGAGA
AGGGCTTCAGAGGAATGGCACATTGAAATAAAAGGGGAAGTGGTAAGAACAGGAACCCAAG
NGGAATGAANGGGCNCACAGTGGCAGGGATGATTGGATAGACTGTGGAATAAAAAATAATT
TG

Sequence 680

AGGTACAACTGGCTTCTTCTCTTTGTCAACAGCACCTGCTTCATAGTCTCTCTGGAGTG
CCAGGAACGGGTCATTTAGATTAAATCTCCCATACCGTTCTGGATAAATACCTCCTTCC
TGCGAGCCCGCAGGGCCTCGATGACAAGGTCTCTGGCCTCCAGCTCCCCTTCCATCACGC
TGAGGAGCATCCGCAGCTCGGATTTACTGAGAGTATCCACATCAAACCTCTTTTTTCAGTT
TTACAAGTGGAATTAAGCAGTCCTCCTCCCGTTTCTCCTTCCATTGCCAGGCTCAGCT
CCTCTACCCCAAGTACCTGCCCCG

Sequence 681

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGGTGGAAGTGAGGTGGTTT
TATTTCTAGTTACCATTTGCTTATAGGCTGTATAGACCTCTGGAATCCCAGCTTATGTGG
AGAAGGTATCCTGTTAGACTTCCCTCCTTTGGTCAGCACTGGGCCTTAAGTCTGGCCCC
TCAAAGCTGCTAAACTGAAGGCCAGGCTTGCTGGCTTGGCAAAGGACGTCGGGCAGAA
GCAGCTTCTCCTCTCCTCTTGTCTCTGTTTCCCCTACCATAGGCTTTGGCCTGGGAG
TTTTCTACA

Sequence 682

CCGCCCCGGGCAGGTACCTTCTTGGTTGCTGTGACTGTCTGCTAGCACTAAGACTGTCTTA
AGCAGATAGAGGGCAATGGTCTTTGAAGGCAAATGACAAAGCGTGGCCCTGAGCTCCCTG
ACTGAGTTCATTTGAGCTCTCAAGGGATGCCCTGGAGCTAGACTCGATCTGAGTGGTTGG
ACTAACTCCTCTTTGTTTTGTATTGAAGAGCCAGCTTACCCCGCCATTTNTAAACCTCA
GGCCAGGAAAACCAAAAAACAAAAAACCAACCAACAAAAACAAACCCACCTTCT

TABLE 1

110/467

TNAGAANTNAGTAANCTTAAGGCTTNAAGAATCAACAGNGCCCCTTTGGGNATTAAGGGC
CATT

Sequence 683

CCGCGGTGGCGGCCCGAGGTAATAAAATACTATCCTAACTTTTTATGTGTTTTTTAA
CTTGTTTTTAGAAGTTTTGTAGCGTTTTTAAAAATGATGTATTTATAACTGGTTAGGA
TGCTAATATCTGTATCTTTTACTCTATAACCTAATTTTTACATTTTCAGAAAAAATTTT
TACAACAATGTAAAAAATACATGGCCCGGGTGCGGTGGCTCACGCCTGTAATCCCAGCAC
TTTGGGAGGCCGAGGCGGGTGATCACCTGAGGTAAGGAGTTAGAGACCAGCCTGGCCAA
CATGGTGAAACCCCGTCTCTACTAAAAGTATAAAAAATTAGCTGGGCATGGTGGCAGGCGC
CTGTAATCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGCAAA
GGTTCAGTGAGCCCCAAGATCCGCGCCATTGCACTTCTAGCCAGGGAGAGAAGAGCCGAG
ACTTCATCTTAAAAAAGGTC

Sequence 684

CGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACACTCTGGCCCTGGCTTTATTT
TTAGATTTTCTTTCCCGGTTGATATCGGAAGGCACAGAGGCAGGAGGTGGGGTGGATAG
TAATGTGTGCCCCCTTGGGGGTNANAGTGAGGTGGAGGGGATGTTAATNACCATGAGAG
GCAGAGGGTCAGNCNANTTTCCANNGCTTCNNGCTTCTTTAATGANGGAAAACACGTG
CANGTNTTAGGAGACAAAGGAAGGGAANTGACTGTTTCCTGGCCTGGTNTGTGGGCCAG
TNGNCTGNTNCNTTCAGTGNTNCGTGCANTTNGACTNTACACNTANGNNGGCAGGCATA
GGTGTNCGGTTNTGAAAGACNGNNNTCTTNCACATTCTCTNCTGCTCTAGGGACTGAC

Sequence 685

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTTTAGTAGAACTCTA
GGAACTGACCAACCCTTTTAAACAACCAGGGGAGTGCTTGATGAAGGAAGAGGCTACCGA
TCTTTCATAAGTATGAATAAGCAGCATGCATAAACCAATTACCTTCCCCTATTCTCACA
ACCACCACCACACCCACCACCTCTTGTGGCAGTGCGGATAGCAGCCCATGTTCTCTGG
AGTTGCTAACCGGTGCCAGGAGGGACAGTAGGGATCATGTCTTCAAATTTAGGGTTGT
ACCT

Sequence 686

CCGCGGTGGCATGCATCAAGGTGACAGGTGACGGCATGGTTATGGATTAACCTACCAAGG
AAATGAGTGTGGAAAGAAGAATGCANAAATCTGAGGACTAGAGCCTGGAGATGGGGAGCT
TCGAGCTCAGAGGAAGAAGAGGATCTTCATCACGGGGAGACATCAGCCTTCTGAGTATCT
GGGACTGCAGGTTATGTGCCACCACACTCGGCTAATTAATAAATTTTCTTAGAGACAG
GGTCTCTACGTTGCCAGGCTGGTCTCAAACCTCTGGGCTCAAGTGATCCTCCTGCCT
CAGCCTTCCAATGCCTTGGGCTT

Sequence 687

ATGCATCAAGGTGACAGGTGACGGCATGGTTATGGATTAACCTACCAAGGAAATGAGTGT
GGAAAGAAGAATGCAAAANTCTGAGGACTAGAGCCTGGAGATGGGGAGCTTCGAGCTCAG
AGGAAGAAGAGGATCTTCATCACGGGGAGACATCAGCCCTTCTGAGTATCTGGGACTGCA
GGTTATGTGCCACCACACTCGGCTAATNAAAAAATTTTCTTAGAGACCAGGGTCTCTC
TACCGTTGCCAGGCTGGTCTCAAACCTCCCTGGGGCTTCAAAGTGAATCCCTCCCTNGCC
CTCAGCCCTTCCAAATGCCCTTGGGGGCTTACAGGCCATTGGAGCCCCACCATGTGCAAA
NGAAAGAANAGCAATTTTGGACATCCTGCCCAAAACAAACAAAGGTTTGGGCAATGGG
TCCTGGTCAAGCAAAACAAGTGGGGTTTGGNGGAATAAACCAACCCTTGGGTTAAAAAT
AA

Sequence 688

NGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGGCCATTGAGACTGCCATGGAAGACT
TGAAAGGTCACGTAGCTGANACTTCTGGAGAGACCATTCAAGGCTTCTGGCTCTTGACAA
AGATAGACCACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCACAGACAAGACTCTCT
TGATCTGCAAATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTCCTCTGA
GCGCTGTCTATCGCATCTGCCTGGGCAAGTTCACCTTCCTGG

Sequence 689

TABLE 1

111/467

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGATACTCATTAGAGTTGCTCGGTGG
AGATGGAATGATGGTGGGGTGCAGTTAAACATGGCTGAGTGCTTTCTGCTTAAGGACCTG
ATGTATTAATGCTCTCCAGGTCATTCATATTTGGGGGAAGGAACAAAGAGGGTACCT

Sequence 690

CCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTCTGCTATGAATCTCACA
GATGTAATAATGAGTTAAAGAAGCTAGGCACAAAAGAATATTACTGTATGATTCCAATCA
TATAAAGTTCAAACCAGATCAAATAATCAATGAACGAGGAGTCAGGATTCTGGTTATAT
TCAGGGATAGTGATGGAAGAGGGCTATAAGGAGGGTGTCTGGGTGCAGGTCATGTTCTAG
ATCTTGATCTGAGTGGGGGTACATAGGTGTATTCACTTCATGAGAATTCAGAGGGCTGC
ACACTAATGATCTGTATAATGCTCCTCTATAGTATGTCACACTTCAAAAAAGTTTACAGA
AACAGTTCCTTCCTAATTTTCACAGGGCCTAAGAGCTAAAAACGCAGCCCCAG

Sequence 691

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGGGCCATTGAGACTGCCATGG
AAGACTTGAAAGGTGCGTAGCTGAGACTTCAGGAGAGACCATTCAAGGCTTCTGGCTCT
TGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCACAGACAAGA
CTCTCTTGATCTGCAATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTC
CTCTGAGCGCTGTCTATCGCATCTGCCTGGGCAAGTTCACCTTCCCTGGGATGTCCCTGG
ACAAGAGACAAGGAGAAGGCCTTAGGATCTACTGGGGGAGTCCGGAGGAGCAGTCTCTTC
TGTCCTCGCTGGAACCCATGGTCCACTGAAAGTTCCTTATGCTACTTTCAGTGAATCCT
ATGAAATACACCAAGTGAGAAATTCCTTGAAATTTGCAAGGT

Sequence 692

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGCACTTTTTTTTTTTTTTTTTT
TTTTTTNCCATANAGATGGGGCTTTGCCATGTTGCCAGGCTGGTCTCAAACCTNTGAG
CTCGAGCAATCTGCCACCTCGGCCTCCCAAGGNGCTGGGATTACAAGCATGACCTGCCG
NGCTGGCTAAAGTTTCTTATTTATACTTACTCATTCTCTAATATCTGGATTTCTTAGT
CATCTGTCACTTCTCCCTGCATATTTCTGTGATGTCTTTAGGTCCCTCCCACTNTTGT
GTAGCACTCCCTGGGGACCAATTTGGAAGGATGCTGAGTCATATGGTTTTTGGTTTTGAG
AGGGTTGAAAATGGAGACTCAACTCAATTTAGGAGCTATCCCATCATAACTAGTAGCAA
ACACGTCACTACTTGAGTCTCAACAAAAGACAAAAAGGTTTNAAGTTGGGGAAACAAAT
AGCTGCCAAGGGTTNTTNTNTNTGACAAAAACATTGNGTTGGGGATTAAATCNATGT
GAATCCTTAATCCCTAACTCATCCATGTTGGGGTTTTT

Sequence 693

CCNCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCANGGTACCTGCTTNCCAGAAGTGT
TATCATGATTAAATGACAGACCAGTGGCAGTAGCATCTCCTGAGGGAGGGTTAGAAATGC
ATATTCTCAGGCACCACTGCAGTCTTGCTGAATCTGAAGCTTTGGGGATGGGACCCGGTA
GTCTTTTTGGATAACTCTGCCAAGNGGTTCCAATGTGCTCAAGTTTGAGAGTTGCTGAAT
TAAAGCGCTGGGTCTTGCCAGGCATACCTGTAATTCCAGCTCTTTGGGAGGCTGAGGTGG
AAGGATTGCTTGAGCCCAGGAGTTCGAGACCAGCCTGGGTAACATAGCAAGATCCTATCT
CTACCAAAAAAAAAAAAAAAAAAGTACCT

Sequence 694

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTAAGTCTCTGTCTTTAC
AGCTGAAGCATCAGAGGATGGAGTGACCAGGCTGGTTCCAATGACAGTTATACGGCCATG
GGGAGTANACATGGAGTCTAATTCAGTGCTTGAGGCTAAGAATGAAGTTGTATGCATTGT
GGAAATTGTTCCAGGAGATCTTGCAACTTTCAAGTTTGAAGTCATGTCTGTGACAGTCCA
GGAATNTGATGCAGCTGTGGAAGACCAGGTGGAAGGGTGTCTGTAGAAGTTGTGCGCCT
CTCTGTGGCCGGGGTGCTGTCCATGGTACCT

Sequence 695

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACACATGTATCANG
GAAAAGAAAACGTTATTTGTCCACAGATGCTGCTAGGAGCAGCTACCCCAAGACAGGCC
TTGCACCTTGGGTGATGACAATGCGTGGCTACTGAGAGCTGTTGACAGAGTGGACAGGGC
CCAGACCAGGACAGTCTCTAGAGGTCTTCACCTCCTCAACCGTAACTTAATCAGCCCC

TABLE 1

112/467

ATGCCGGGCTAGCCCCATGCCACAAAGGCTCAGAAATGCCCTGCAACATGTGGGACACCT
GGTAGTATCTACATAGGGGCCAGCATCCATCCCAGCTGCTGGGGGTGGCTCAAGAGCTGT
GAGGGACACCCTTTCCTGCCTGATACCGTGGACCAGTTTGCAAAGAGCTGACTGTCCTGC
TAGGCCCA

Sequence 696

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTTTTTTTTTTTTTT
TTTTGTATATTTAGTAGAGATGGGGTTTTACCATGTTGGTCAGTCTGGTCTCGAACGGN
TGACCTCAAGTGATCCGCCCACCTTGGCCTCCCAAAGNGCTAGGATTACAGGCATCAGCC
ACTGTGCCCAGCCAGCCCTATGCTTTTAAAGAGTTCGATGGTTGAAAGAGACTGAGCGGGG
AAGGTAGAGCGGGGCAGGGGAGGGGACTACTTGGAGTCAAGTCAAAGTTTTAGGGAAAGAC
CTGAATCTGAAAAAGATTATTTAACCTTTATGTGTCTGAAATACTATATTGTGCGAATTG
TACCT

Sequence 697

CCGCGGTGGCGGCCGCGGCCGCGGCAGGTACACAAACACGACAGAAGCCCACGGAGCAAGCCC
TGTGCTGGCCCCTTCACATGACTTTAGGCCCTCTAGCAAGGTGATGTTTATTACAGGGT
TGCATAACAAGGCCTCACCATTCAAAAAACCTTGTATTCTATTACATGTTTCACATTAA
CAAAGACTGGAAATCTNTAGGAAAGGGATCTTTTTTATCTACATGAAAAGCACAGGCTA
GTAAAGACTTGTTGAAAAAGTTGAAAGAACATAAATGTATATGGTATATGCCACATAGCA
TAATGGAGGAAGATAGCAAATAGGAAACATATTGGTGAGGAAGACTGGAGTTTGATGATC
TAGTCAGGAAAACATCAAGTTAAATCCTTTACTTTACACCTAAACCATAAACTGGTGAAT
AAAACAAGTATGTGAAAGCACANANGAGAGAGGACAGGCCGGGCGCAGTGGCTCACGCC
TGTAATCCTACACTTTGGGAG

Sequence 698

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATCCTATGCAGNCATNC
TGTNAGNACCCATTCCATTNTNCTATCCCTGGNTNGCTGGTGTCAATACTNTNAAGCGAN
TACTGCNNGNGCTCTNNTTTTTCCCTCANAGATACCNNGTGATTTCTTTGATTCTCTC
CATCTCTACAGGCATAATAACTCCTAATATTTAAAAACNCTGTAGAGGGATGNANNGAAG
CTGNGGNGAGAGCCCNTGGGCTTTTNCNCTGGGTNAAGATGCACATTCTGAAAATTNTG
GGCCTTGGCTTAAGCTGNACTAGNGCCGGCCACTCAGCTGATCTCACTAGCGTCACCTGT
CGCAATGGTGCTGAAGCGCACTNCCNAGAGGCCATAAGGCAAAGCGAGAGTNCNTGGCTA
TNGACTGGANCCCATTTAAGCAAAAAAACATGCCTCNCGNANGACAAATTCNATCAACAA
AGGGNGGGCAATACAGGATCTGTACCTGCCCGGGCGGNNCGGGCANGAACCTTTTTTTTT
TTTT

Sequence 699

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCAGCCCGCCACCCGGCTT
GTGTGTCATCCTGGGCCAGGCAGGTGATGATGCCAAACACAAGGCCAGCTATGTAACC
AAGTAAAACTTTCATCAGAATGCCCATCTTTGTGACCCACAGCCCATTGTCAAGAGCCT
TCCCTGTGCCAGGAGTTCAGCAGGTTACCTCCGCTCCACTAGTCACTAAGACACGGAT
ATTTTAAGAATTAAGCCTCCACAAGCCAGGCACAATGGCTTACACCTATAATCCACA
ACTTTGGGAGGCCAAGGTGGGAGGATCACTTGAGCCAACGAGTTCGAGACCAGCCTGGGC
AACATAGCGAGACCTTGTCTCTACAAAAAATTTAAAGTTAGCCAAGCATGGTGGGGCA
TGTCTATAGTCCTAACTACTTGGG

Sequence 700

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTCAGTAGAGGCCAGGTTTCACC
ACGCTGGCCAGGCTGGTCCTGATCCCCCGGCCCCAGGTGATCCGTCCACCTCAGCCTCCC
AAAGTGCTGGGATTACAGGCGTGAGCCACCGCACCCGGCTCTTTTTTTTTTTTTTAAAA
TCATGATTTTAAACAGAAGCCTCCATTCAAGGCGAGACATGCCTTTTATTTCTTAATTGC
GAGACACTTTTCTGAATCCTCTTGTGAGTTGCACCTTTTAAACAATTGAGGTGACACTG
TTCTTCATGGTGACACTGGTCTTCCCAAGAGGTTTCAGCTAATTCAGTCTATCAGATT
TACATCAGATTTTAAATTTGCTTCAAACCTTGGGTGCTTGTATTCAAATTCATGCTTCAT
AGAAAAATGCATATCAAGTTCAACAGTTGACTAACTGCAGCCACGTTACAGTACCTGCC

TABLE 1

113/467

CGGCGGCCGCTCTAGAACTA

Sequence 701

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAAAAGGCTGATACACAC
TGACAGATTTTGTAAACAAGGGACATTTAAACTGAGCTGGTAATAGACTTGATTTCTGGT
GTTGCCACTCAATAGGCATGACTAAATAGTGTACCTCACTGTTCTACTTTTTATAATTAA
AATTTTAGAGGAAGCTGAGTTCCTGTATTTAACTACAAGTTAGAGACTCAGCCCACAAGC
TTTTTTTTTTTTTTTAAATATGGTTTCTTTTTTTTTTTTGGAGACGGAGCCTTGCTNTG
TCACCCAGGCTGGAGTGTAGTGGCGCGTCTNTGCTCACTGCAATCTCTGCCTTCCCGGTG
CAAGTGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACCGGCGTGCACCAACCAGC
CCCAACTAATTTTAGTATTTTAGTAGAGACGGGGTTTCCCATGTTGGTCAGGCTGGTC
TTGAAGTCTGACCTTGTAAGTGGCCTCCCAAAAACGCTGGGGTTACAGG
CGTGAGCAACCATGCCAGCCTTTTTTTTTTTTTTTTATTT

Sequence 702

AGGTACGCGGGATATATNTAAATTTAAGAAANCATCCCCGGTAATATGGCTCTTCATAAT
TCTAAGACTAAGGCTGGNGTAGAAACCTAACCACTACCTTACAAGNGAAGGGGGCTATA
CCATGGGGTAAGCCAAGTTTGAAATTTATGGGGAATCNTACCAACTTGNTTAAGGGGG
CCCTNGGATTTGGCCTNGGGGGCCAAGNNTTTTCTGTATTTTTATAAAAGGTGATCTTN
CATNGGTATTCCCTTGGTTTACCTTGGATAAGGGGGGATTACCAATGCCTTCTTAAGGAA
AAAAATTACCTTATTTGGGCCTTGGGGGGAAGGTAGGGTNGGGCTTCAATAGCCCTTGG
TAAATTCTCCCAAGCCACTTTNGGGGAAGGAAGGGCCTGGANNGTTTTGCCGCCCACTT
ACCACTTCCCAAGCCCTTGGGGGGTGAACCAAGAAGTGGGAAGGAACCTCTTGGCCCCT
CAATATNNAAAAAATNAGAAAAGGNAANATTNCACCTATTCTTACCANAACCCCTAAG
NACCTAATTTTTAAAAAATACCAAAAAGAATTGGCCCTNGTTTNTCAAAAACCACTAA
TTTGGGAAATAAANAANGGGGTGGAAGAATTATTTCTTTAACCCNNATNGGAATAAAA
ATNNATNNNATTTNGGGGNTCCCTTGGCCCCNGGGCCGGGCCCGCTTCTAAAAACNTAAGN
GGGGATCC

Sequence 703

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGNCGGGGCAGGTACTACTGACTTACCTGCC
ATGGGCTTTCTCAAGACAAGTCCTGCAGGAGAGGCACACTCACTTCTAGCGTCACTATT
GAACCAGCCACTGCCTTCACTCCTCATCTCTCAGCAGCAGTGGTCACTGGATCCAGTGCT
ACATCAGAAGCCAGTCTTCTCACTACGAGTGAAAGCAAAGCCATTATTCTTNACCACAG
ACCCCAACTACACCCACCTCTGGAGCAAAGTGGGAACTTCAGCTACTCCTGAGAGCCTT
TTGGTAGTCACTGAGACTTCAGACACAACACTTACCTNAAAGATTTTGGTCACAGATACC
ATCTGTTTTCAACTGTGTCCACNCCACCTTCTAAATTTCCAAGTACCT

Sequence 704

CCGCGGTGGCGGCCGAGGTACTGTGAAAGAACTAGCACTTTGAGCAGAGAACAATGCCT
TACTTGAGTTTCCCCTGGACTCTATCCCTATTCAAAGATGCTTGGTTATACCTCAAGAGG
GAAGCAATCCAGACCAACTCCTATGACATGACAGGCACTCAAGCCTGATGAGGCAGAAAC
CTGGCAGCTGTAGATGTTGGAAAGGATAATTTATGTGTTCAAGTGAAGTACTAGGATTCTAAGG
GCTAGATGCTAGCTTCAAGCACGGCTGGATCTAGGAAGCCCTTTTGCTCTCCCTTTTCT
TGGTCTACTTTTCTCTGTAGGCAAGTTCATTCTTCTAGGCAAGTCTCTGCATGTGGC
AGCAATGATGGACACTGGAATCTCTGGGTATTCTAGAGTTCTTTCAGTAGCAG

Sequence 705

CGGGCGGGTACCTTACCACCCCATCCCCAGAGCATTGCATGGGGTGTTTGGCACACAGTA
GGTGCTCAATGTAAACGTGTGCACTGTGGCATGTTAGAGCCAGACAGGATCTCATCCAGC
CCGTTCTCTGCACCCCTCCCTCCCTCTCCAAGTAGCCCTGCTGTGGGTTCAAGTAAAGA
GGGGCTGGGGCGCTGGTCTGATTGTGTGGGTGATTTGGGGAGATCTCTTCTCTCCGGA
ACCCCAAANGTTGGGACAAACACAGCAACAAGCCCAGCTCCCTGAATTTCAAGTATTCA
TTTGTGGGATAAAGGAGTGAATGATAAAGTGAAGGACGACTGTCCCCGCGTACCT

Sequence 706

NGGTTAANTGCCGCCNCTTGGCCGTAATCATTGGGNCATTAAGCCTGGTTTTCCCTNGTG

TABLE 1
114/467

TGAAAAAATTTGTTATCCCGCTCCACAATTTNCACACCAAACATTACCGAAACCCGGGA
AGNCAATAAAAAANTGGTAAAAAGCCCTTGGGGGGGTGGCCCTTAAATGAAGGTGGAAGC
CTAAACCTCAACAATTTAAATNTTGGCGGTTGCGGCTCAACTTGGCCCCCGCCTTTTTNC
CAAGANGCGGGGAAAAA

Sequence 707

GGCGATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACTGAACATCCATGGCAGACGCTATT
CTTTCCCTCTTAGAGATGCAGACACTGAGGCTCAGAGAAGTTGTCCCGCACCCAGTATGT
GATGGAGAGGTAGAGGGTAAAAACATCAACTGAAGGATTTAGCATTGGGGAAGAAGGAA
GAAGCCCAAAATGGAGTAGATCAAAGGCTCCCCCGTGAACAAATTTAAATTAAGGAGAA
AGAAGCAGAATTCAGTCTTCTCCACACCCATAACCAAACAGCTCCTATGAAGGCACCAAG
CCTGACGCTCATCCCAATAAAAAGGAACGATCTGGAGAGAGGGGCAGCCGCTGGTGACAA
GAGAACCCCCCAGGCAGCCTCGTCATCTGGCCAG

Sequence 708

GGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACTTTTGGGGGACAGATATCATAT
AGGGGATTGATGTCAGTGACCAAACGAAGTGACCATTACAGCCCTTTNGAAACCTGAGGT
GTAATTTTTAAAAATGAACCTCATGACTTTAATAGTCATAGACTCAAACCTGAGTTGATTA
TTATGAATTAGTTTATGGGAGTCTCAATATGTGAATATGATGGAGACAAAGTTTGGAAATA
CAGATAAATCAAGTCACTGTATTCACCTCTCTCTCTCTCTTTGAATAGCCTTATCTTTG
CCTATACACACAAACAGTGACGCCATCAAAATTTTCAATTTACAAAATGTTACAGTCAT
GCTTCTTCCTTGACTAAACACTGGGGTTGCTGCCAGTGGTAATTGGCTTGAAACCAGCTA
ATTTTTATATATCTATTTAGTCTGGATATTCTAGATGAGTGGGCACTATAGT

Sequence 709

ATTGGAGCTCCCCGCGGTGGCGGGCCGCGGGCAGGTACCCACGTTTTGCTCCCACTCCTT
GACCGCAGGGGCTCGGACACAAACCCCTGTCACCAGGAGAGTCAGTCAGCACTACTTGGG
AGGGCTAAAGGGAAATTTGAAAAATAAATTCCAAAGTTTGGAGTAAAAAATTCAGTGT
TGATTTTATATTCTTTCCCTTTCTGACACAGCCTAAAGCGTAGGGGGAACATGTGTTTAT
CTGTGGGAGATAAACAAGATGGAGTCCCAAAGACTTTAACAAAATATTTTTTAAAAATC
CACTAGAATAGAAAATACATTATTTAGATATACTTTATGCTGAGAGTGAGTATATATGCT
TGTCTTATTTAACTTGTGAGAAAAAGTGGTATCCCTTGATACATTTAGAAATATGGGGG
CTATCTTGGTTTCATTGNGGGGGGTGGGGGCAGAAGGAGAATAAATGCAGGATGCCCTTGT
TGAAAGGAATCTTAGCATGGCCACAGGGGACGTTTCCAGTCGATTACCAAGGAATGCCA
GCCT

Sequence 710

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCGGGCAGGTACCCACGTTTTGCTCC
ACACTCCTTGACCGCAGGGGCTCGGACACAAACCCCTGTCACCAGGAGAGTCAGTCAGCA
CTACTTTGGGAGGGCTAAAGGGAAATTTGGAAATAAATTCCAAAGTTTGGAGTAAAAAA
TTCAAGTGTTGATTTTATATTCTTTCCCTTTCTGACACAGCCTAAAGCGTAGGGGGAACA
TGTGTTTATCTGTGGGAGATAAACAAGATGGAGTCCCAAAGACTTTAACAAAATATTTTT
TTAAAAATCCACTAGAATAGAAAATACATTATTTAGATATACTTTATGCTGAGAGTGAGT
ATATATGCTTGTCTATTTAACTTGTGAGAAAAAGTGGTATCCCTTGATACATTTAGAA
ATATGGGGGCTATCTTGTTCATTGTGGGGGTGGGGCAGAAGG

Sequence 711

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACGCGGGACGGTGAGCCGGAG
GAGTCATGTCAGAGGGGCGAGCAGGAGCGATTCCGTGCGCAAACAGGTTATGAGTGCCAG
TGAGCCGCCTTAGATAGAAGCATCGTCAGCACTTTATTAATGATGGATAGNGAGAATAAA
CCCGAAAATGACGAGGATGAAAAGATAAACAAGAAGCACAAGACTTGACAAAGCTTTCA
TCCCATAATGAAGACGGTGGGCCTGTATCTGATGTGATAGCAAGTTTCCCTGAGAATTCT
ATGGGCAAAAGAGGTTTTTCAGAAATCATCGAACTCTGATAGTGTTGTTATAGGAGAAGA

Sequence 712

NCCCGCNGTGGCGGCCGAGGTACTCTTATGAGAGGAACATTAAATTTGCAATTATAATG
CAAAGAAACAGGAGACGATCGTGAGAATAAGCAATGTACACACATTTCTCTCCAAACTA

TABLE 1

115/467

TATGTATCTTGTCCCTTAAATTCTTTGACGTGTGTGTGGGGCCTGGGTGGGGGGTGTGGG
TGTGTGGTGTCTAAGGGCCTTTTCTACTAATTCCAATACTGGGTATCTGTGAGGCTG
CTTATTCTCACTGTATTTTACTGCTTCTTTGCCCTTTCTTGTTTTTTTTTAAACCATACT
CAGGTATGGTTAAAATGTAAATGAAAGAA

Sequence 713

CCGCGGTGGCGGCCGCCGAGCAGGTAAGTGGGGCTGCACAGGCTGTGGCAACACTGGCTA
GTCAAAGCCTGGAAGACCTGTGAGCTTGAACCTTTCTGGGTGCCATTGTTCTGTTGGT
TTCAGCAGTGAGACTGAGAGAGCCTGTTCTGTTTAGAAAAGCCACAGTGGTTTTCTAGGT
AAAGTCTGCAGGAGATGTCACTTGGTGCCTTTTCAATACGAGTTTTCCACCTGCATTTT
GGAACCATTATGGGCCTTTTAAAAATTTATTAATAAGTCTCTTAAATATTTTATAATCTA
GCTTCTGAGACAAGATGATTTTAAACAGTTATATGCTCTAAATTAAAAATTTA

Sequence 714

AGGTACCGTGTGAGCAGGTGGCGTTCAACAGGGGTGAGACTTTATTGACAGTAAGTTGCC
TCTGCCAAAAACGCCCTCATATGTCTGCTGATGTTTGAATTNCNNCCNNATGGCAGGAG
GTTTTTGGTCTCCCGAGNTTTAAAAAAAATTGGTTAAAAATAACCTGGGTTTGGTTN
TTTCTTTGNTATGGGGAAGGCCCTTCAAGNAAGNGGAAAATAAANAAAAAAGTAATTA
NANCCTTAACCTTCTTAAGGGGGAATTAATTGGTAATTTCAAAATTTTTTGAATGGCC
TTANCTTTNTTAATTTTTTTTAAATTTTTTAAATTTTGGGANGGAAACCAAGGGGGGGG
TTTCTTNTGGGCCTTTCTTGGTTTGGCCCCAGGGGGCCTTGGGGNANGGTTGGCCAAGG
NCCAATNTTTNNGCCAAAATTTCAAACCAAGGGCCCTTTCAACCTTTGGGCCAAGNTC
CCCCTTTCAAAAACCCCTTTTCNNCCTTGNTTTGGGCCCCCCAAAA

Sequence 715

CCGCGGTGGCGGCCGAGGTACCGTTTTATGATGATAACATAACTTTAATGCTCCAACCTG
AGAAAGATAAAATAGACTAAGATGACCATTGAATGCAAACAGAAAGTTCTAAATGAACAA
TCAAGNCAGGACCTGGAAATTTCAAGTCCCTGGTGGTTGGAAAAANTAAATTAATTA
ACCAANTTTCTTGGTTTTTCCAAGGAAAAANTGGNTAAAAAAAATTAAGGTNTTTAAAT
AANCCCCAGGGAATAATTTCCAAATTCAAATTTATTAATAAGGCCTTAAATTAATTAAT
ATTTTTTGGCATTTCNAAGGCCCAACCTTAAATTTGGCCTTANCCAAAATNGGTTTTT
GGGTAATTAACCAGGGCCAAATTTNATTAATAAAAAATTC

Sequence 716

AGGTACACGATTATTTCAACATCCAGGTATTAAGCCTAGCACCCAAGAGTTTTTTTTTG
CTTCTCTCTTCTCCCTCCACCCTCAAGTAAATCCAGTGTCTGTTGCCNCCNTNCTT
CGGTANNAACCAAGGTGGTTTTTTTTTAAATTTTCCACCAAAAAAATCTTCNCATNC
AACCTTCTTCTTTTCAATTTTTTGGCCTTNNCCTTAAACCGNAACCTGGAAAAACCT
TNCTGGGTNTGGCTTCCCCAGTAAAGNACCAAGGAAANTTTTAAANTTTCAATTTT
TTTAATTCCTCGGGTTTTTAAAAAAGGGTTNAAAAGGGAAAGGNTTCTTAACCCCCA
AGTGCCCAAGGGGAAAGNTTGGGGTTGGGGGGCCTTCAACCNAAATTCCTTAANTTAAA
AATTTTTGCCCNAAAGGGCCAAACCTTTNNTTTGGGAAGNGAAAGGGGGGGCCCCCGGA
AAGGGGGCCCCGNAAGGGTTTGGGGGAAANTTCAAACCNAAATTTGNTAAAGGGGGTTTT
TGGGGGGAAAAAG

Sequence 717

CCGCGGTGGCGGCCGAGGTAAGTACAATAAGGACAAATATTCAAACATTCTGTAAAGTAA
AATAAGACAGTCAAAAAGGAAAGCTGTATAATTACACTCATGTAAAAATATTTAGTCAA
CNCTCACAGGANAACCAAGGTGGTCAATAGGTTCTCAAGCCAGGTGGCCACCCCAAAG
GAATGGTTAAACCAAGGTTCTTCTTCNGTTAAGGTTCTTGAAGGAATTAACCAAT
CCCCAAGGAGGTTTNTCTTTTTGGTTTTCTTAACCTTCTTAAAGGGGAGGAATTTAAAG
GGGAGGTGGTTAAAAANCAACCAAAAAAGGGTTTGNAAAGGGNTTTTGGGGGAAGGNTT
GGGAAAAAANGNTTTTAAAGGNA

Sequence 718

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTGTCTCAAATCTT
GGATAGCTGTCCCTCATGTACCTAGCTGCTGAGAGCTTTGTGATCCTAACAGGTGATGA

TABLE 1
116/467

CTCAGACCGACACTGCATTGGTAGGAATTCACAAATAGGTGCCTCAATGTGCCTAGATT
GAAATATCAGCCTTTCCAGACTGACCTGATGGGTTGACTTCAGGTGTGGTGTAAACACC
TACATTTTAATGTAAACATTTCAAGTGAATCAATGAGAACTATCATTCTGCTTTAATCAC
CATGAGTTCTGAAATAACAAAGGATTTGTCTGACATTCATTCTAAGAAATTCATTCTTAC
CTGACTAAGAAACTTTTTTAACCCGGCACAATAATAAGAAATGACCTGTNAGTACCTGC
CCGGGCGGCCGCTCTAGAACTAG

Sequence 719

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGACTGTCTCAAATCTTGG
ATAGCTGTCCCTCATGTACCTAGCTGCTGAGAGCTTTGTGATCCTAACAGGNGATGACT
CAGACCGACNCTGCATTGGTAGGAATTCACAAATAGGTGCCTCAATGTGCCTAGATTGA
AATATCAGCCTTTCCANACTGACCTGATGGGNTGACTTCAGGTGTGGNGTAAACACCTA
CATTTTAATGTAAACATTTCAAGNGNAATCAATGAGAACTATCATTCTGCTTTAATCACC
TGAGTTCTGAAATAACAAANGATTTGTCTGACATTCATTCTAAGAAATTCATTCTTACCT
GACTAAGAAACTTTTTTAACCCGGNACAATAAANAATGACCTGTAAGTACCTGCCCG

Sequence 720

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCTGTGCTCCAGGTGTTACA
GCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTGCGCAAATGTTGCC
TGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAAGATAACCTCAGAGTGAGCTCGCTG
GAGGGGCAGTTCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTG
ACTGCATTACACCACTCAGTATATGTGAGGGAGGGGATGTGCCTCTGGCCACGTGTTAC
CTTGCACTGCACAGCCTGTGGTCATAGA

Sequence 721

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCTGTGCTCCAGGTGTTACA
GNTGCTTNGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTGCGCAAATGTTGCC
TGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAAGATAACCTCAAAGTGAGCTCGCTG
GAGGGGCAGTTCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTG
ACTGCATTACACCACTCAGTATATGTGAGGGAGGGGATGTGCCTCTGGCCACGTGTTAC
CTTGCACTGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGA
CATGTCTTGTCTCTCAATGGCCCTGGCAGGCCAACCTTTAGTTTCAGGGCTACCACCTG
TGCGGGGGCTTNTGTCATTACCCCTGTGGATTAATGCTGCACACTGNGGTTATGACT
TGTACCTTCGGCCGTT

Sequence 722

GGAGAGGAAATGTGTAGGGGTGAGGGATGATACAAGAAAGCCAAATCCTCATCTTCTATA
GTAGAGAGTCAGCGGATAAAACCTAAAAACAATACATCAAGAAATACTTACACTTATGGA
AGGAAATACCAGAAAGTTAAAGGGGTACTTCTGGGACATCAGACACCAGACTGCAGGGA
AGGGCTGCCTCTTGATTAACAAGCTTCCAGTATAATTTGCTTTTTAAAAATAGGTCCAT
GCATTATTTTAATAAAATTANGCTGGGCGTGGTGGCTCAGGCCTGTAATCCCANCACTT
TGGGAG

Sequence 723

ATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACTTAAGCAAGCTGTGTGACCTA
GAGCACAGTGCTTTGAGTTTTTGAGTCTTAGCTTCTGTGTCTATAAAATGGGGTTCACAC
AACTCACCTTACAGGGCTGTAAGATTAGATTACACAGAAAATATATTTTTGGCTGTGGG
GGCTGGAAGTGTGCTGATTAGCATTTGAAATCCCATCCTGTGGGTGAGAAAACCCACC
TTATGACTTGGTGGGAAACAAAGCCAACCTCCCACTGATGAAGCTGAAAGTAGCAGAACC
TTGCTTCTACTGCCTCCCTTGCACTAGAGGCAGGCACAGGACTAGCCTGTCAATTGGAT
GCAAATGCTCCAGGCCTGAATCACAACCTGGTGACTTGACCCCAAGTCTATTA

Sequence 724

GGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCTGAGACTTCTGGAGAG
ACCATTCAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGA
ATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAAATACCGACTTNATCATGCTGAG

TABLE 1

117/467

TTGTGTGCAGCTGCAGCGGATTCTCTGAGACGCTTGTCTATCGCATCTGCCNGGGCAAG
TNTCACCTTCCCTGGGATGTNCCCTTGACAAGANACAAGGGAGGAANGGCCTTAANGAT
CCTANCTGGGGGGGGA

Sequence 725

TAGGGNGAATTGGAGCTCCCCGCGGTGGCGGCGCCCGGGCCGGTACCCATAAAAAATTAAA
AACTATTTTAAAAATAAATTCATTTGAGCCACTCCTTCAAACCACCCAGAGTGGGTAG
ACGTCTTTTCGTGCCTCTAAGAAGCCCCATCTCTATTCTGCGTCTCACCTTGCAGGGCTGC
TCATCTGAATCCTGAAGATGGTGGACACCCATCTGCTAGGACTGAAATGAATAGGACAGA
GGGAGGTGCAGAGTGAATGGACCATACTACCTGTCATCTTGGCAACGTGTGATTGAATAA
AACAACTTCTTTAGAAGTTTGATAGAGTGATTTGATAATGTAATTTACAAGTGATCATT
CTTTTTA

Sequence 726

GGAGCTCCCCGCGGTGGCTTTTTGAGTCTGGACAGGNCCTGTTTTTGCTTTAAAGTTAA
GAGAGCTAAATAAATGATGGTAAAAAGATAATAAAATAGAACATGAAGGGCTGTCAGTCA
GTGTAGGTATTTCCATCCCCTCACTTTTCAAGTGAGGTCACGGAGGCTCAGAGCGATAAG
GAGACTTGCCAAGGCCACACACCGGCTGGTGTCTAAGCCGGGACTTGAACCCACGCAGT
CTGACTCTAGAGCCCAAGCTCCTAACTATGACATCCTATTTGATACACTGTTTTACTGGA
GAAACAGATCATTTGACAGACATTCTTTCTGTTAGCAATTTGACAACCTTTTCCCAGTT
GTCTGTACCTGCCCC

Sequence 727

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGCCCGGGCAGGTACGCGGGCTA
TTCTCTTACAGCTAGGACCCAGCGTTCTGGGCAGAATAGCAGGCAGCGCAGTAGCTACTG
AGATTATAAGTGGTAGGTTTATGGAGCTGTGACCACAACCTCTCCACAAGCCAGTGCTGTC
TCATGCAAGCACTCTCAGTGTCCAAGTGCTGAGTGTGTGAGTGGTCTGGGCTTTGCAGGG
TCGGCCAAGCTCTTGGAAGAGCAGGCTTTGTTAGCTGGGGAGTCATCGCTCCATGCAGGC
CCTGAGAATGGAGCATCCTGAGTGGACTGGTAGAGATGGGGCATGGGTCACTCTGAGGGT
TTGAGCTACTTCTGCTATTTTTGAAATTCTGGTTTGAAGTGCAGGATCGTGCTGAGTTTG
GCACAGACTAATTTCTCTGTTGGCAGCACATGATGTATCAACTCATGTGTCAGTTGGTTT
G

Sequence 728

CCGGGCAGGTACTACCTTCTCTGCTACAAGTCGAGCGAGGAGCCCCGCATGAGCCCTGAC
ACCTGTGCCACCATTTTGGAAAAAGCTGGTCTCGATAACTGGGCTCTTGGAAAAACAAAA
GTGTTCTTAAGTATTATCACGTGGAGCAGTTAAATCTAATGCGAAAGGAAGCTATTGAC
AAGCTTATTTTGATTCAAGCTTGTGTCAANAGCATTCTTGTGTTCAAGGAAGGATACCAA
AAAATACAGGGAGGAAAAGGGAAAGGAAAGCCGCTTATAATAATACCAGTCAGCTTGCAA
GGAGGGACCACCTTGTGAGGGAAAACANAAGAAAAGGAAAATTTGGTTTGGACCATTG
AAAAACCCCAGCANTTAACCAACCCAATTTCAAAAACTTTCTTGATTGAGGGAAATTTT
GACTTACCAAGAAAAAACCTTTGGNAAAAATACCCANGGGGGGNTCCTGGGNAAAGGGNA
GGANGGGAGCCCAAAAAANAATTTGGANAACCCCCCNANGACCGACCCCCCNGGAAACC
CCCA

Sequence 729

CCGCCCGGGCAGGTACTTTCTTTTTTTTTTTTTTTTTTTTTTTTACGGAGTCTTGCTCTGTC
ACCCAGGCTGGAGTGGAATGGTGTGATCTCGGCTCACTGTAACCTTCGCCTCCAGGTTT
ACGTGATTCTCCTGCCTCAGCCTCCGGAGTAGCTGGGATTACAGGTGCACACCACCATGC
CTGGCTAATTTTTGATTATTTTAGTAGAGACGGGGTTTACCATGTTGGCCAGGCTGGTC
TTGAACCTCTGACCTCAAGTGATCTACCCACCTTGGCCTCCCAAAGTGCTGGGATTATAG
GCATGAGCCACCACGCCAGGCCCACTCTNTAAATTTTGACCACCTGCCTTGAGTGGTCT
TCTAGCACCTAACCTCTGTCTAACCTTCGAGAGCTTTGCACTAGCNATTCCTGGGGACC
AGCTATGGTTGGTATCTTCTCAACTTTCTAATTTTTTAAAAATATTATTATTATTATTA
TTATTTTAAAA

Sequence 730

TABLE 1
118/467

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTGTGTGGAA
AAGAATGCTTGCAAAGCTTGTCACCCCTCACGAGAATTCCTCTGACAGACATTTGCCTTTG
ACAGTGAAAACAGATATTAAGTGAAAGGAGAAGAAACCGAAGAGCATCAGAGGGGACGA
CTGGGTTACTTAACTGTTGGGGAGCAATCTGAGGAGTTGGTTACCAGAGAACTGGCGAT
GGCGATCCCGTGAGCAACATCTCTCAGACCCATTTTAAATGCCGGGGGATACTTAATCAT
GCTGAAAAACAGCAGAGCCCTGAGGTTTTGGACTACATGTTGCAGAAAGAA

Sequence 731

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTACACCTGGGACAAA
TACTTTTTGTGAAGNCAGGTAAAGCCTTTGCGTGCAATATAGCATCTCTATGCAATGCA
NCAACTCCTCGTCTATCGCTACAGTAAGAAAACAGCCACGGGTCAGGTGTTGNGGCTCAC
ACCTGTAATCCCAGCACTTTGGGAGGTCNAGGTGGGTGGATCACTTGAGGCTAGGATTTT
GAGACCAGCCTGACCAACATGGAGAAACCCCATCTNACTGAAAATACAAAATTCCCGGG
TGTGGTGGCNGCATGCCTGTAATCTCAGCTACTCGGGAGGCTGAGGCAAAAGAATTGCTT
GAATCTGGNAGGCGGNCGTTTGNNGGTGAGCCAAAATCGTGCCATTGCACTCCAGCCTG
GGCAACAAGAGCGAACTTTCGTTTCAAAAAA

Sequence 732

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCACGGTACTAGTTATTT
TAAATCCACTCATAACTTATCGGCCAAAAGTAGTCACATGGCTCCACCTAATCACAAGT
GGAGCGGGAAGTGCAATCCTACCTTGCTGGGGAAGGTATAGAGATAGACCAGCACTAAT
GACTACCACACTTCGCTAAGGTCACATAATAAATAAGCATCAGACATCAGGTGTGGTGGC
TCATGTCTATAATCCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACTTGACTACAGGA
GTTGGAGATCAGCCCGGACAACATAGTGAAACACGTCTCTACTAAAAACACACGCAAAAA
AATACGAGGCATGGTGGTGCATGCCTGTAATCCAGTTACCTGAGAGGCTGAGGCAAGAG
AATCACCTTGAACCCAGGAGGCAGAGGTTTGCAGTGACCCGATATTATGTCACTGCAAG
TNCAGCCTGGGTGACAGAGCGAGACCTTGCTNAAAAAAAAAAAAAAAAAAGAAAA

Sequence 733

CGACCACTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCACGGTACTGC
TGGTTCAAGCCATTAAATTACATCACAAAGGTTTGGTTTCTGTATATATTTCTCTGGG
GCACTTTTGCTANGTTGGCTCTATCCTGAGGCAGNCTCTCTCCTCGTGGNAACCAAGTGG
CTCTAGCAGCCTCAGCTTTATATCTCTCAAGAGTAAGTCCACCGTCACAGAGC

Sequence 734

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACACACCACCACA
CCTGGCTAATTAATTTAAAAAAATTTTTTTAGAGATGGGATATCTNATGTTGCCAG
ACTGGTCTCAAACCTCCTGGCCTCCAGCAATCCTCCACCTCACCTCCCAAAGCCCTGGGA
CTGCAAGCATGAGCCACCATGCCAGCTATATTTTCTGTAAATTGCTAATGANAATGAAA
CATGTATGCTGTGGACAGAAGCCTTGTGGACCTAGAGCCCATGCTGGGTCTTTGCCTT
AATAAACATAACTCTGGCATTACATATATAATTAACAGCCTCAAAGANCATGTTTCTTT
ATTAACTCTGACTGTTTCAGCATTATTTT

Sequence 735

GCGAATTGGAGCTCCCCGCGGGGGCGGCCGCCCGGGCAGGTACTACTGTGTCCTTTAGAT
CACTCTGCCTTGATCACTCTGTCCCGTCACTCTGCTATTTACCTGNCAGNGAAATACCT
GGTATCGTCTGCCAACGTGAAGCATTGAATGCTTNATACGTCTCCATCCTGATTGTTA
GGCTTTGAATGCTGAGAAGTATCTGCACTTTGTGGTCA

Sequence 736

CCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAAGTACCCTTAAGCCCTGCTCCT
TTGTAAAGTCTTTTTGGATTGTCATCATCAAGAGTCAGTNGATCTCCANCTTCTCAGAAC
TCACAGGGCACTCTGTCTAGGCATTGCTGACCGTCTGCAGTGTGAGATGGTGACTTCTGT
ATGTGTTGTGTTTCCCGTTAGACTCTAAGGTTTTTAAAGGCGAGACTCACTCCTGCAGAA
GCACATAACACAATGCCAAACTCTTATTTACGGAGGTCCTGGCGCATTGTCAGCTTTTGG
TAAATGCTTTTCTTTTGTGAATACTTATCTTCTGTGTGCCAAGATTTGTGTTAAGTGCT
AGAAAAATGTGGGAGGTCACCGCAGACCCTGTTCTCATGGAAGTATGGTGTGTAGTGGG

TABLE 1

119/467

GTGNGGATTAACATAAATAAAATGATGCGCAAATGAACACAAAATTCAAATTGATGATGT
GTACCTGCC

Sequence 737

TNTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCCTGAGCAGTCAAG
TGGATGCCAGACCAATGGCCAGTGCTAATATCAATGCAANGATCCCAATGACGATGATT
GGAAAAAATTCAATGGCAGCAGTGACAGGATCTGTGCAGCAACAGCATCTGCATCTGGT
GCAACAGGACTTATTTCAAATCATCAAGGCCAAAAAGCGATCGGAATGAGAAGGGGGCT
TCAACAGCAGGCGGATCATTTCCTCCCATGGTGACTATTTGAGGACCTCTGACATCCGGC
TCCGCCTCCACCTCTACCTCATAATTCCCGAGTCCCAAAAATGTAGATGGCACCACGGAA
GAGATAGTAGGCCACAGTGTTACTGGCTTCCCATAAACACAGCCCTTCTGGCTCACAC
GGGGCATGACCTCCCGCGTACCT

Sequence 738

AGCTCCCCGCGGTGGCGGCCGAGGTACATGTAGTTGGATGTCGAGGTTNGATTAGATTCT
GGGGTTGGTTTGCTTGTTTTGGTGGATNGTTTNTGAGTCGACTTTACAGAGGGTTGTTTA
TCCACCAGAAGGCACATGTGCTTGCTGTGCTTTTTTGTATTGTTTTGAGGCAGAGCC
TCNCTGTGCTTCCAGGCTGGAATGTAGTGGCACAATCTGGCTCACTGCAACCTCCACC
TCCCAGGTTCAAGTGATTCTCCTGCCTCAGCCTNCCAAGTAGCTGGGATTACAGGTGTGT
GCCACCATGCCAGCTAATTTTTGTATTTTCAGTANANATNGGGTTTTTTGCC

Sequence 739

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGCAGGTACACTTCCACGA
GAAGAATTAATATTGTAGTGTTAGGAAAAGTAGCAATTTAACTAAACAGCATCAAGTTAC
AAACCAGGAAAGTGATTTAAACTAAATGCTGGCTTATCTTTCTGAAACAAAGCATCTAA
ATTTGACAGTCCAAAATGGCACTTATTGAGTGCCGTGACAATACATGCTGACAAGCAGC
ACACCTCTTTTTTTGTTTTTAAAGACGGCATCTTGCTGTCAACCCANGCTG

Sequence 740

CCGCGGTGGCGGCCGCGGCCGAGGTACCTATATAAAAATTGATTTAGCTTCTACACTCA
AGTAATTATAAACAGGTTTNTCTTTTGGGACATTTGACAGTTATGTGAAAGGTGAGTCTT
CGTTGTGTAGTATTGTCTGTTACACTGCAGGTGTCTAGAATTGCTGATAGTGTTCTCCCT
CTAAAGTAATGTCACCCAACCACTTGTAATTGACGATAATAAGACAGGAAATCAAGAAC
CAATATAAATAAGCAAACATTTGAAAATAAGAGCTAAAAATCAAAAATAATCTCTCTTTT
TGCTGATAATACTTTATACCTAAATAACCTAAGATTTTTTTTTTTTTTTTGGAGACAGAG
TCTTGGCTCTGTCAACCCAGGCTGGAGTGCAAGTGGTCAATCCCGGCTCACTGGAACCTCC
GCCTCCTGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGAAGCTGGGATTACAGGCA
TGCCACCGTGCTGGCTATT

Sequence 741

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTACAGTATAAATCATGCT
CCTGCTGTCTAGAGCTTACCACCCAACGAGGGCTTCAGATAAGATCAGCAACTGCCCTAG
AGTGTGGAACCTATGACAAGGTGAGCCTGGGGTGTGATGGAAACACGGCGTGATGGT
TACCAAGCCACGCTTCCAGGGAAGGGGTCCGTGCGGGAAAAAATTTCAGAGAGGAAATGA
CATGTCAGTCAATAACCTGAAAGAACTGGNTGAGAGTTAAGCANCAGGGAACAAGGGCAC
AGTNNTCCACACAGCTTTTTGAAAGATCATGTTGNTTATAGTGCAAAAAATACTGAAT
ATGGGAAACAATTTGTTATTATTTTAGGAGTNTTGCTTTGTCCCCCAGGCTGGAGTGC
A

Sequence 742

ACTACTATTGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGGGGGGAAAA
AGAGTTACAATTTGCCATAAAGAATGGAGAGAACAGAAATGTANCTTTTATGCTGAAAA
ACAAAATGCAAGGGCAATCCAGTTTCTAATTCCTGTGCCAAAGCTGCTGTTCTTGATGAC
CTCGGTCAAATCATTTAAATTCTCTCAATTTGTTCAATAAAAGTGCTATTAACCTGCAG
TTCCTTCAAATACTATCCAATCAATGTTGGCTACTTGATTTTCA

Sequence 743

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTATTCACAGGGTATGCATAAA

TABLE 1

120/467

CCAAATATACAAGAATTTAATGACAGCATTATTTGCAAACAGTGAAAGATTCTGAGCAAT
CAAAAGGTTCACTACTACAGGCATAGGTCTATAAATTACTACTGTATGGAATACTATGCA
GCCATTAAAATAATGAGGAAGAGGGAGAGTGCCCTGTATGCACTGACATGGAAAGGTTTC
AGTATATGGTAAAAAGCAGCTCATCTTAGAACAGATTTTATAGTATGACCCCACTTGTGT
GGAAATATTTTGTGATGTGCCACTCAGTGTATACGTATTCATGAGTGCATATACAAGTGT
GTGAGAAGCAATGTAAGTAACTGTTTCACAAGGACCCCCCTTTAAGAAGGCAGAGGGGA
TCGGGGGATATAGAGTGAAGGGATGATTTTGTCTTTTCTCTA

Sequence 744

CCGCGGTGGCGGCCGAGGTACGCGGGAGGAAAGGGCTGTGTTTATGGGAAGCCAGTAACA
CTGTGGCCTACTATCTCTCCGTGGTGCCATCTACATTTTGGGACTCGGGAATTATGAG
GTAGAGGTGGAGGCGGAGCCGATGTNAGAGGTCCTGAAATAGTCACCATGGGGGAAAT
GATCCGCTGCTGTTGAAGCCCCCTTCTATTCCCGATCGCTTTTGGCCTTGATGATT
GAAA

Sequence 745

CCGGGCAGGTACACAGTAAGTGAAGGGCCAAGACTGACGGCTGATAGGACAGGGGTGACC
AGNGGTGGGGAGGGTAGTGGGAGCAGTCCATCCTGGAATCTGGCATTCAAGGGGCGCATT
GTCTGTGGGAGGATTTAAAAATAATAAAACCAACTAAAGGCAGTCTGCTTTTATGGTCA
CCAGGCCGCCAGCAATTCTAAATTCAGTGATAAAATATTCCTCCTCACTGGACACGAGA
AGCTGGCTTTCTCCTTATTCCCCAGTACCTTNGGCCCGCTTCTAGAACTAGGTGGGATC
CCCCCGGGGCTGCAGGGAATTTCCGATATTCAAAGCCTTATCCGAATACCCGTCGACCC
TTTNGANGGGGGG

Sequence 746

CGGTAATACTNGTTATCCACAGCAATCAGGGGGGATTAATCGCAGCNAAAGAACATTGTT
NAGCAAAAAGGGCCAGTCAACAAGGGGCCAGGAAGTCTGTAATAAAGGCCCGCGTTGCTN
GGNCGTTTTNTCCCATAGGGGCTTCCGCCCCCCTTGGACGAGGONTACCAAAAAATTC
GACCGCTCAAAGTCANGAAGGTGGCGGAAACNCCGACAGGGACCTATNAAAGGATACCA
GGCCGTTTTCCCCCTTGGGAAGGCTCCCTNNTTGCCGCTCTCCTGTTCCNGACCCCTGC
TCGCTTACCGGATACCTGTCCCGCCTTTTCTCCCTTCGG

Sequence 747

CCGCGNGGGCGGCCGAGGTACATCTTTGGTGACTTTTCATTACATTTTCATGGATAATTT
GGGGAGGTGGCCTGCCANCCCTGAAGCCCTACATCCCATAACACTCTGTGCACATCCA
GTGCCCTGCTCCACCATGGCAGTGCCCGCAAGGGGGTCCCAGATGAGAAGAAGCTGGCTA
AAGGGCCCTTGTCCCCTCTCAGACTCCTTCAGCGGGCTGGAGTCCCTCCCTCGCTCGATTT
CGCCCGAGAGCGTTAGGGGTTTCTAAATGCAGGCGCCTTTGTGTTGTAACGAAACTTTTA
GTTTAAGGGAAAATCTCTTTAAGCCACTGATTGTTCTGACTTGCTGAGTTTACTCAGCA
GCCTTATGCTGGCTCTGCCACTGCACAATAAAACCAAAGCANGACAGTTGCAGNTNAAAGC
AAGGGGGAACATGTTTTGCATT

Sequence 748

GCCCCGGCATGGTACCTGTGTGGAAAAGAATGCTTGCAAAGCTTGTCACCCTCACGAGAA
TTCCTGTGACAGACATTTGCCTTTGACAGTGAACACAGATATTAAAGTGAAAGGAGAAGA
AACCGAAGAGCATCAGAGGGGACGACTGGGTTACTTAACTGTTGGGGAGCAATCTGAGGA
GTTGGTTACCAGAGAACTGGCGATGGCGATCCCGTGAGCAACATCTCTCAGACCCATTT
TAAATGCCGGGGGATACTTAATCATGCTGAAAAACAGCAGAGCCCTTGAGGTTTTTGA
CTACATGTTGCAGAAAGAAAAGAAGNAATTTNTACCTTNCCNAAAAATAAAATATNNNA
NNNNGGTACCTCGGGCCCGGTTTTNAAGTGGGATTNCCCCGGGCTTGAAGGAATTC
GNTNTTCAAAGCCTTNTTCGATCCCCGTCCNANCCTCNANGGGGGGGGGC

Sequence 749

AGGTACTTTTTTTTTTTTTTTTTTTTGGNCTAACTGNNNGGAGTATTTCTTTACCCAA
GATAAGTAAAAGCTACAACCTTTAGTATAAATATGNGTCCAAGTGCCTNATAACTGCTAA
CCACAGGGATCCTGAGCTCTNATAGCTTAAACACACAGNGTNNATTTTACTGGTCTACTT
CTCCTGNAGACCTAAAAGGGCCTATAGCCTCAGTAGTTGACAAAACAACATATTAAT

TABLE 1
121/467

CCTCACTGATCACTAACATAACCTAAAATCCCTGCTTTTGACATTAGCATGGNANACATC
CTTAGCAGGCCTAAATAGAATGGCCTTATAAGTGGATCCAAAGGGC

Sequence 750

AGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAAGGCAGT
CAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTG
GTCAGTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGGTGGAGCAAGTCTTT
CTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGAC
ATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAG
CACTTCTACCTGAATTTACCATCACCAACCTACCATATCCCAGGACAAAGCCCAGCCA
GGCACCACCAATTA

Sequence 751

GTGTCCGGAACTCCTACCCGGTGTGNNGACAGTGCCTGATAGTTTCTTCTGCCTTTCTATC
CCAAAACGATTGGTCAGTTTACCCAAGTTTGCAATGCAGTTTANAATCTCCCAGGAACAT
CTCTTCTAGTAGTTGCCTTAGCCATCTTGATGTTGATTTGACTTTTTTTTTTTTGTCTNN
CAGAAAGCTCTATGCTTCATATGGACTTGCATACCAATTTTTTTGTTCTGTTGGTCTAT
GATGGTTAGCAGAGCCTGACCTCCTGTTACAATAGAATGATCGGTTCTGGGCTACAGAC
TTGAGTCTGTTTTTTTGTGTTTTAAACCTTCCCATGNGGCAATTTGCCATATGCAAAAC
T

Sequence 752

CCGGGCAGGTACGCGGGTGAAAATGGAATAGTTTTCTAATTACAGAAAGAAAAGAAGTTG
AAGTGGGTTTTCGCCATGTTGAGCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCAGCT
CGCCTCAGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCACGCCTGGCCAAAAAT
CTTATAAATAATCCCCTTCTAATTTGCGCCAGCTTAATCACACACCAAATTCCTTTCTATG
AGATTAATCTTCCACAACCTTCTACACTTCCTTAAATCTTTGATTTTGTCTATACTTCTT
TTTTTATATTAGCAATCTACTTTAGGACAGAAATTTACTTTCTTTCTCTTGATTTGA
CCAAAGTCCTCTCTTAT

Sequence 753

TAGTTTTCTAATTACAGAAAGAAAAGAAGTTGAAGTGGGTTTTCGCCATGTTGAGCAGGCT
GGTCTCGAACTCCTGACCTCAGGTGATCAGCTCGCCTCAGCCTCCCAAAGTGCTGGGATT
ACAGGCATGAGCCACCACGCCTGGCCAAAAATCTTATAAATAATCCCCTTCTAATTTGCGG
CCAGCTTAATCACACACCAAATTCCTTTCTATGAGATTAATCTTCCACAACCTTCTACACTT
CCTTAAATCTTTGATTTTGTCTATACTTCTTTTTTATATTAGCAATCTACTTTAGGAC
AGAAATTTACTTTCTTTCTCTTGATTTTGACCAAAG

Sequence 754

CCGGGCAGGTACCTATATGATGTTGGCCATGCTCACTCACTCCTCCAACCCTCAGTTTAC
ACATCTGCAAAATGAGATACTTCTTTTCCAGTGTTGCTGTGGACATTAGCAGGCACACAC
ATTTGGTGCTTGCAAAATGAGGTCCTAAGAGGTGGGTCCCTCTCATCTTACGTGAGGAA
ACTGAAGCAGATTAGAAATGACCCAAGGAAACCACTCCGAGTTCAGTCTGGAGCCCACTC
CCCTAGGTTTTAATCATCCCCCAACTCAGTCCCTATCTGCTGAGGTTCTGGATCCAGAC
GGTCTTACCAAGGAACTGTCTGTCTCACCACATGGATGGTTTTCTGGCAGAGGTGTG
CCCTGTGAGGGGTCA

Sequence 755

GCCGAGGTACANACAAGGGGGCNACTGNCATGGGGGNGGNNTCTGGTCTTGTAGTCNGTT
TGGAATTTTCTAAGTCAGGGTGGGGTGGGGGACTGTGCACGGGTCATGTGCAGACTGGA
ACCCATCTCCCCCTCGGTCTGCAAGTTAAACAATTGGGTTGTCTTCTCAGCATCTGCC
AATGTCTCTTANTCAATCTTGGATCAAAAGGGCGTTGGAGGAGGCTGGGAGGGAAAT
CCAGACAGTTCTCCGCCTCTGACATCAGGTCCAGCTGTTAGCATCGTGCTGTGGGTCCCT
GAACAAGAAGCAAAGTCAGGACT

Sequence 756

AGGTACCGCTGTGTCCGGGTGGGTGGNGNGAATGCCGTGCTCCAGGTGTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC

TABLE 1
122/467

CAACTGGGTTTCCCAAGCTATGTAAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGT

Sequence 757

AGGTACCTCTGGATATGTTACACTGAGANAGATACTTCATCACTTACATGATATTGCTCC
CCCACAAATTTTATAACCTGAATCTAGTTATAAGGAAATACTATGCAACCCAAATTGAGG
GACATTCTGCAAAACAACCTACCTGTAATCTTTTTTTTTTTTTTTTGGAGACGGAGTCTCA
CTCTGTCTGTCAGGCTGGAGTGCAGTGGCGCGATCTCAGCTCACTGCAACTTCTGCCCCCG
GGGTGCGAGCGATTCTTCTGCCTCAGCCTCCTGAGTAGCTGGGACTACAGGCACACGCCA
CCACGCCAGCTAATTTTGTGGGGTTTACCATGTTGGCCAGGATGGTCTCCATCTCT
TGACC

Sequence 758

CCGGGCAGGTACTATGGTCCCCGGCAACCTCCCCTTCTCCTGGGAATGCTCAAATGGGA
AGGCAGCATGAAACGGTGAACAGGCAATCACTGGACAAAGTCACAAGAACTGGGCTTTAG
AAATGGTTTTACCATTAGCAGTTGTGACACCTCAGAAGTGGCAACTCTGGATCTNAATAC
CCTACCCTTNACCCTAAGNANAGGTACCTCCNCAATTTTNNCGGGGGGAAACNTTCTNNG
GAANTTNCCCTTTCCNAAAAGGGGGGGGGGGCTCTTTTTTTTTTTTTTGGGGGGGGGG
CCCCNNCNCNCCCCCCTTTTTTTTTNTNAAAGGGGGNTTNAANANANATTTCTNTNC
TCNTTNTTTNTNANGNNAAAAANTCNGGTNGNGNGTTTTTTTTTTTANAAAAA

Sequence 759

GGCGGCCGAGGTACAAAGAAAGGACTTGATAGCTATTACCTTGCTGCTATGTTTGTTNCT
TNGNCTACCAATCATNTTNTGTATACCTAGCACTGCACCAGGCGCTGAGGTTAGAGAA
ATAACTAAAACGCGCCCTTCAACCCTGATGGCAGGATAGGCAAGGTTGGCACCATCGTC
ACAGCAGGACCCTCATCGATGCCTTGGTGTGTGCCTGGCATGGNGTTTGCAGCAGTTTAT
CACATNNAATCCTTACAGC

Sequence 760

AGGTACTCAGGCCTTACTGGGATTTCCTTTAAGACCTCTGGGAGGAAGTGTGAGTAGCTG
GGCAGGCCTTCTTGGCAAGCATTCTCCCTGGGTTGTGGCGGGGGCTCCCGGCCTGCTGT
GTGGCAGCTGCAGGCTCCTGGGGACCTGAAGGAAAAGCTTAACCGTTCTCCCTTCCCTTG
CTTGGCACTTAGAGCACTAGTTCCATTCCAGACATACCGATTATCTTGCCTACGTGGCAT
AGAGGCCTAGGAGCCTCCCTGGGAGGAAGAGGCAGGCCAAGGTCTTGCCTGGCTGCTTTT
AGGGGGGAAAGATGTAGGGAGGAAGCTGCCTTATGCTTGGATCTGCAACCTTTGCCTGGAC
CTGCGGAGCCTATTTTGGCCAGGGGGAGGGAGACAGAAATTANACCCNANGTATTNAGGT
AATCCTTTTNTTGCCTTTGAACATTGCNCGGGNGTACTTTGNAAAAA

Sequence 761

CTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGTGAAAAAT
GGAATAGTTTTCTAATTACAGAAAGAAAAGAAGTTGGAGNGGGTTTCGCCATGTTGAGCA
GGCTGGTCTCGAACTCCTGACCTCAGGTGATCAGCTCGCCTCAGCCTCCCAAAGTGCTGG
GATTACAGGCATGAGCCACCACGCCTGGCCAAAAATCTTATAAATAATCCCCTTCTAATT
TCGGCCAGCTTAATCACACACCAAATTCCTTTTATGAGATTAATCTTCCACAACCTTCTAC
ACTTCTTAAATCTTTGATTTTGTCTATACTTCTTTTTTATATTAGCAATCTACTTTA
GGACAGAAATTTACTTTTCTTCTCTTCTTATTTTACCAAAGTCTCTCTTATGCAAAAT
GAAAAATTACTCTTTTTTCAACTTTCTTTACCAAATACATCCTCATAACTTTTTTTCC
ATCTCTCCTACTTACTGG

Sequence 762

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGTGAAAAAT
GGAATAGTTTTCTAATTACAGAAAGAAAAGAAGGGGGNGTGGGNTTNTGCCATGTTGAGC
ANGCTGGNCTCGAACTCCTGACCTCAGNGATCAGCTCGCCTNAGCCTCCNAAAGTGCTG
GGATTACAGGCATGAGCCACCACGCCTGGCCAAAAATNTTATNAATAATCCCCTTCTAAT

TABLE 1
123/467

TNCGGNCANCTTAATCACACACCAAATTCCTTTCATGAGATTAACTNNCACAANTNCTA
CACTTNCCTTAAATNTTGTATNNTGNCCTATACTTNTTTTTTATATTNGCAATCTACTTT
AGGACAGAAATTTACTTTCTTTCCTTGTNTTTGACCAANGTNCNTCTTNTGCAAAA
TGNANAATNNCTNTTTTTTCAACTTTCTTTACCAAAA

Sequence 763

TTAGGGCGATTGNAGCTCCCCGCGGTGGCGGCCGAGGTACATGTAATGCTCCTGAACTGT
ATGCTNGACACGGCTGTCTACNTAGGTTTTGTTCTGTGTATTTTATGACTATTTTTTAA
AAAGTAAACAAAAAGAATTAGCTGGAAATACCAGCACAGGCAAACCCCTGGAGACAGAA
AGCAGGTGAGTGGTTGCTGGGGCTTGAGCAGGAGGAAGGGCGAGGGACTGCAGAAATGGCC
ATGGGCTTTGCCTTCTAGCATGATGAGAATGTTCTGGAATTAGACAGTGGTAACGCTTGT
TCAACACTGCCAGTGTAGTTAATGTCACTGAATTATACACTTTAAATGGCTAACATGACC
AATTTTATGTTATATATATTTTACTACCACAAAAAACTAGCTGGCACCTAAAAACATTC
CATT

Sequence 764

CCGCGGTGGCGGCCGAGGTACTTGGATGGGTTTTGTGTGTATGTTTGTGTGTGCACTNGC
GTCCACCCTGTTGGGCTTAGTGAACTTTTGATTGAGTGAATTAAGTTTCTCATCAGAT
TTGGAAAATCTCAATTACTTTTTCTTTAAATATTTCTTGGCCTTCCCCTCTCTCTT
CTTCCAGGATTCCAATTCATCGATGTT

Sequence 765

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGTTCAAGCG
ATTCTCATGCCTCAGCCTCCCAAGTAGCTGGGACTAAAGGTATCCACCACCACGCCTGGC
TAATTTTTGATTTTTAGTAGAGATGGGGTTTCACCATGTTGATCAGGCTGGTCTCGAAC
TCCGGCCTCAAGTGATCTGCTCGCCTTGGCCTCCCAAAAGTGCTGGGATTACAGGCATGA
GCAGCTGTGCCAGCTGGATAATTATTTAATAAATTGGGGAGCATAGGAAGCATAGTATT
TGTGAAGTGGGTAGGCAGGTGTGATGGGGGTAGGTGATGTTACATTTGGGGCATTTTGAA
GTTGGTGGTCTTCTGAGTTGAGCAGTCAGTCACTCTTCATTTGCTGCACCTTTATCTCA
TTTTAGCCAACAGACATTGAATACCTACCAAGTCTTAGGTATTTGCA

Sequence 766

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAGAAA
GAAAACAAATACCAAGTATTTACAGATCCAGAGAAAGTTCACAAGAATGGGAGGATGCCA
GTTCCAATGCTTTGTAAAGTCAAAAATAGCCACATTGCAAAACAAACAAAAAAAACGAG
AACGTTCCCGAGTGTGCCTCCAAACATAAAGGAGAAAATCATACAGAAAAACCTCATGT
AAGGGTTGGAACCTGAGCAACCAGCTATCCAATACAGAGGGGAATCCTCGCTTAGCTAG
GGCATGGCCTGAG

Sequence 767

AGGTACACACAGTGATTTGGGGTCCTTTTTCTTAAACAGCTTCTTTATCAGGACTTTGG
AATTCTGGGTGAGATAGAAACACTGAAACAGGGCGGAAGTTTTTCTTCTGGCTTCTTA
GTCCATGGAGGGCTCAGCGTGGAGAGGATATGCCGTGGCATTCTCCCTGGGAGACCACAC
ATGTTCCCGACAGCTCAGACCCCAGACCCGCACATGCTTCTTGACAGTTNAAACCCCAA
CCGNAGGNGCTCCCGACAGNTNAAACCCCANACCCCGCGTACCTGCCCCG

Sequence 768

CCGCGGTGGCGGCCGAGGTACTTAATAATTCATAATTTAGCCATGATAGTATCTAAGCTC
ACTTTCAGAATTATTGCATACATGCCTTAGGGAAGAACCTATCCACTAATGCTTTTAATA
ACTTACATAGATTGTGTTGCGGCAAGTCAAGTTTTAATATAGAGGAAAGGGTTTATCTTA
TCATAGTAAAATAGTAGTGATGTGTTTCAATTTACTATTTGCATGGTATATTATCAAGG
CTGTAAAAGCTTGAATTTGCCTTTCCACATCTTCATTTCAAATTAATTTTTGTGAGGAC
CCAGAGAAGTGGGTAGAACCCAAATGCCCATGNGGGT

Sequence 769

GGCANGGTACAAATTCAGGGGAGGATGGAGCAGCTGCAAGCCTGGCTGGCATCCCATGCC
AACAAGGTGACCCAGTAGATAAGTGACAAGGTGACTGAGCTGCCTGGTGCTCTTGATAG
AATTTTCAAGTGTTAGAAAAATGTCTCCATGCCTTGCAATTTGTCTCTTGGGCCAAGCC

TABLE 1
124/467

TAACTCAGATGGAAATGCAGAAATCACCCGCTCTTCTGCGTCGCTCACGCTGGGAGCTGTA
GACCGGAGCTTGTTCTAATTNGGCNATTTGGGTTCNTCCCCCGGGNNCNTN

Sequence 770

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTTGGAGNGGAGTCTCACTCTGTTGACCAGGCTGGAGTGCAGTGGCACAAT
CTTGGCTCACTGCAACCTCTGCCTCCCGGGTTCAAACGGGTCTCCTGCCTCAGCCTCCCA
AGTAGCTGGGACTACAGGCGCATGGTGCCACTCCCGGCTAGTATTTTGTATTTTAGTAGA
GACGGGGGTTTTACTGTGTTGTCCAGGCTGGACTCGAACTCCTGAGCTNAGGCAATCCAC
CAGCCTCAGCCTCCCAAAGTGCTGGCATTACAGGCATGAGCCACCGTGCTGGCCTCTTT
CATATTTTTTTTACACTTTTCATTTCTTCTTATTTTAAGTGNGCTGGATAGGGGCTCCAG
AACAGAATTCAATAGAAAGTTGTGACAGTAGGAACCCTTATCTTGGTCCCTGATTTTAAA
GGAGGGTTNAAAAAAAACCCCCC

Sequence 771

ACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTGGAGAGAGGGGTTTCACTATGTTGCCTAGGCTGGTCTTGAACCTCTGGC
CTCAAGAGATCCTCTTGCTCATCCTTCCAAAGTGCTGGGATTACAAGCGGGAGCCACTG
TGCTGGCCTAGAAGATCTGTTTTCTTTCTCTGAATAATTCTTGTGACACTGTCTCTCC
CTCCATCTCTTTCTGTTTCTTTGTCTTTTCCAGCTATCCTTTTTCTTGNCTTGTC
CTCTTCTCCCTCCATCCTAAACCTTTGATCACAAGCTAGTTTCTTTCCACATCATCT
GCTCCCCTCTACTAAACGCTATTTGCCCCCACCTGCTTTCAAGCTGNGCTTGCTCTGA
GCCCCCTTTTACCACGGCCCAA

Sequence 772

NCTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCATGCTAGACAA
CCTTATGACTTGAAAACAAAATAATTTGAAATGGAAATGGCCTCAGTTCCACCCCTGG
TGCCACATAGCATAGTGAACCTGCCCTGCAGCATTGCCATGAGTGCTAAGATCCTGT
GCCCATTTGCATGTCTTCTTAAACAAAAGACCGCCTTAGTAAGAAATTAGTAAACCAGG
GAGATAATCAACTTATCCCCAAAAGATTTAAGCCTCTCATTTTGTTTAACTTCATTGG
GGATTTTAAATAGAAAAGTAGGGCCCGGCAGGGTGGCACATGCCTGTAATCCAGTACCT
GCCCGGCCGCTCTAGAAGTAG

Sequence 773

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGG
ACATCCAGGACAAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTTGCT
TCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCT
CCTCCAATTTGGACCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCT
CATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGT
CATCAGTTTATCAACCAACAAGCAG

Sequence 774

AGGTACGCGGGGAGTGAACGCTCTCGGAGAACCCTTTCCACGAACGTCCACTTCAAAG
AACGCGACGGAGCATTAACTCTGCCACTGACCCCTGGCCTGCCTTCGCCTCCTCCTTC
CTCCTCTACCTCCTCCAGGCGCATTACCGCCTCTCTGCCTTCGCCAGCAGTTTCTATT
TAATCTCACCGCCAATGCCGGATTTATCGCTCCACTGTTCACTGTCAACCTCCTCGGGAC
GCCCGGGGTGAATCANACCAAGTTTTATTNCGAAGAGGAAGCGGAAGTCAAGCACTGTTT
CTACAAAGGCTATGTCAATACCAACTCCGAGCACACGGCCGCTCTAGAAGTAGTG

Sequence 775

CCGCGGTGGCGGCCGCCGGGCAGGTACACTACTGGCATAAGAGTAAATTGGTGAGAACT
TTCTGGAGGGGTAGTTTGGCAATGTGTTTCAAAAAATCTAAAAATTATTTGCTCTA
ATCCAGCAATTATACCTCTAGAAATTAATACTAAGGAAAATCTTAAGAATATACCGTAAA
ACTTTAGTTGTAAGAAATTTTTTGTGGCCAGGCATGGTGGCTCACACCTGTAATCCAG
ACTTTGGGAGACCAAGGTGGCGGATCTCCTGACCTCATGATCCACCCGCCTCGACCTCC
CAAAGTGCTGGGATTACAGGCGTGAGCAAATTTTAAATAAGAAGAAACAGTCAACAGCAT
CAGACATAGTAGGTATGTCCAACACCATAATGGCTGAAAAGTGCCCCCTAGTCTGGCAAT

TABLE 1

125/467

TAGTAGGTCATTGGTTTATTAATAACCGGCATGTTAAAGTTG

Sequence 776

CCGCGGTGGCGGCCGGCAGGTACAAATCATACCTCCCAAGGTATTGCTCCATTGTGTTTT
TGTGCATTTGGTTTGGATTTTTATGGGGAATTGAAGACAAGTGGATCATAAAGTGCAAAA
TAAATGCTCTAGAAATGACAGATGGGGCACAATTTCCAAGAAAATTCATCTAGACAGTG
GCAACACTGAGAAAAAAAAGAAACATTCAAGAAG

Sequence 777

GAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTT
TGCTAGAGATGGGGTTCCACCATGTTGGCCAGGCTGGTCTCGAACTCCTGGCCACAAGTGA
TCCACCTGTCTCAGCCCCCCCCAAAGTGCTGGGATTACAGGTGTGAGCCACCACTCCTGGC
CCATGTTTAGGATTTATACCAATATTATTAAGTTAGAAAATAAGTTTCTAATAAATTATTC
CACCCGAACCTTAGGGTAAGTGAATTTAATGCTGATGTATTAAGCAGGTTCTTCCTGGGG
TCTTTTGATTCTCAAGGGATCCTTCACTGNGGGTGGACTTCAAATTAATAGGAAGCAGGA
AGGAGCCACCTGCACTGTTTTCTTGACTGGGGATGACACCNAACCTT

Sequence 778

CCGCGGTGGCGGCCGAGGTACTATGAGAATTTCAAACAAAGAATGAAGCCATAAAACAAA
AAGACTGAATATTTGGCTCTGCCTGGCTCCCAGGCTTTCTACTATTCTTGAGCTTGGCC
TCAACAAAATCTAAAGTGAAGTGTATTTGTGGGTGAGCTTTGTCCCATCCTTACCAGTC
ATGGCTTTAGACAAAAGACTCAGCACCCTCACCTNTGGGACAGTNTGACTGNGGTCTG
AGNCCCCTGCTTANATATTAGGCTTAAGCTCAGTT

Sequence 779

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATGAGAATTTCA
AACAAGAATGAAGCCATAAAACAAAAGACTGAATATTTGGCTCTGCCTGGCTCCCAGG
CTTTCTACTATTCTTGAGCTTGGCCTCAACAAAATCTAAAGTGAAGTGTATTTGTGGG
TCAGCTTTGTCCCATCCTTACCAGTCATGGCTTTAGACAAAAGACTCAGCACCCTCACC
CTCTGGGACAGTCTGACTGTGGTCTGAGGCCCTTGCTTAGATATTAGGCTTCAGCTCAG
TTCC

Sequence 780

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACACACAGTC
AGCATGCGCTGTAGCAATGTGCTTTGCAGCTGGAAGTCTATCAAGCATCCTAGGCAAGG
CATGCACCCCAGCGCCAGAGAGAATCAGGAAGGGGAAGGTGCCCTGAACCTCAGACAAGA
ACCCCTTCCAGAAACCACCACCAAGCCATCACTGTGTTTCCACCCTCAGACCTGTGTCT
CTTTAGCTTCTTGGTAGAAGGAAAGAAGAGGAGCTTGGGTGGGGCAG

Sequence 781

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCATGGACAT
GCACCCCGGCCACAGAGAGGCGCAACTTNTACAGAACACCCTTCCACCTGGTCTTCCA
CAGCTGCATCAGATTCTGGACTGTCACAGACATGACTTCAAAGTTGAAAGTTGCAAGAT
CTCCTGGAACAATTTCCACAATGCATACAACTTCATTCTTAGCCTCAAGCACTGAATTAG
ACTCCATGTCTACTCCCCATGGCCGTATAACTGTCATTGGAACCAGCCTGGNCACTCCAT
CCTNTGGANNNTTAAACNTTNAANANNNNAANCNNNCCCTNGGCNTTTTTAAAAANNN
GGNNNCCCCCGGNNNGGGAAATTTTTTTTAAANATTTTTTTCCCCCCCCCCCCNGGG
GGGGGGGGCCCCCCCCCCCCCTTTTTT

Sequence 782

NAATTGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGTACTTCCCTGAGCAGTCGAAGTGG
ATGCCAGACCAATGGCCAGTGCTAATATCAATGCAATGATCCCAATGACGATGATTGGA
AAAACTTCAATGGCAGCAGTGACAGGATCTGTGCAGCAACAGCATCTGCATCTGGTGCA
ACAGGACTTATTTCAAATCATCAAGGCCAAAAGCGATCGGAATGAGAAGGGGGCTTCA
ACAGCAGGCGGATCATTTTCCCCATGGTGACTATTTCAAGGAC

Sequence 783

CNATTGAGCTCCCCGCGGTGGCGGCCGAGGNCCTGATGTCCTACAGTCCTCTACCTGATCT
ACGTTCACTGGAAGTGTNGAGTCTCAGCAGGAAGCACCTTGCTCTCGTGTCCGGCTAAT

TABLE 1

126/467

TCGAGTGCTTTACGTAAGTAGAGGAATTGCTGACTTTTGGGACATTTCTGGTCTTGCCAA
AGTTCACCTTGATAGTAAAGCCCCCAAAGATACCTCCCAAATAGATGCTCTCTTGAAAATA
ACTCAG

Sequence 784

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGTCGGCCTATTTTA
TATTCTGTTTAGTGCTTTCAACCCCGAAATCCACCTTCTAACATTAATATTGATATCCAT
CCTCTCTCTCCTCCAACCTCTCTCTCTTGCATTTACTTTTAGATTTTCATTACTTTCT
TTTTATTCTGATTCTTGTAATAGTATAAACTAGATTCTTTATTTTATTTACTTTTA
AATTTATGATTGACACATAATAATTGTATATTTATGGGGCACACGTGATGTTTCGGT
GCATGTATACATAGTATAATGATCAAATTAGGGTAGTTACCATATCCATTACTTTAAACA
TTTATCATTCTTTGTGGTAACAACATTAATAATCTCATCTAGAATGGCGTGAACCTGG
AGGCAGAGCTTGCAGTGAGACGAGATGGGCGCCACTGCCTCCAGACTGGGCGGACGAGCG
AGACCTCCNTCTCAAAAAAAAAAAAAAGG

Sequence 785

GCTCCCCGCGGTGGCGGCCGCGCAGGTACGAAATGAGAGAAATGGTTTAGTAAACGTATAA
GACATCAACATAGNAAAGTATTCTATAGGNNTATGTGTTGGAATTACAAAGATGAAGAAA
AGATACAGGCAAGTATTTGATATACTNAATTAATAATAGCAAGATGTAGAGTAGNCATGT
ATACAGTGATAGCAAGAACATGGATCCTTAAGGACAAAACCTGAAACATAATGCAAAAAA
GAAAAATATGCAAAATTATTTTCGTATGATGTAAGTTGTAAATAT

Sequence 786

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNGTACNCGGGCCTATTTCTGAA
TAACTCAGNNGCTTAAATATATCCCAAAGTAGNNGGTATCACAGGGTTTCTGATGAGG
ATAAATGGGCCTGAAGTGCTTATGGGCACCCACTATGTATCATGGNAAAACCTGCACGTG
TGTGTGTGTGTTGAGAGAGAGAGAAAAANAATAGANAAGTTGGTGAGAAAAGGNGAGG
CTGTTTTTTGNCCGAGGGNTGTNTGGTTGGGCTT

Sequence 787

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGNACACANTAAGTGAAGGGCC
AAGACTGACGGCTGATAGGACAGGGGTGACCAGTGGTGGGAGGGTAGTGGGAGCAGTCC
ATCCTGGAATCTGGCATTCAAGGGGCGCATTGTCTGTGGAGGATTTAAAAATAATAAAAC
CAACTAAAGGCAGTCTGCTTTTATGGTCACCAGGCGCCAGCAATTCTAAATTTAGTGA
TAAATATTCCTCCTCACTGGACACGAGAAGCTGGCTTNTCCTATTCCCAGTACCTGCC
CG

Sequence 788

GGNGGCGGCCGCCCGGTTTTGGACGCGGGTNTNTGCCCTNACTTTTTTAGCGGAGCAGAG
GAAACATTCATAAGGAAATATGCGAGTAGAGCTCAGGAGAAAAGCAGGACTAGAGGCCCA
AGAATCACAGGCCAGAAGAAGAAGCTGTAGCCTCGGGAATGGAAGAGCTCTCTGAAGGGG
AAAGGGGAGAACAGGAATGTNCCAGGAGCCAAGGCTCATCTATAAGGGACTTNCACATTT
AGGATGTAGAAGAAGGAAGCAGAAGCAGGGGATGACCAGAAATGGCCCAGAGATGAGAT
GAAAGTTAGGAGAGCGGNGAGCAAGCCTTTAGGTTTCACAAGGGAAGGAGGGGAAAGTAGG
TGTTAGGTGCTGCCAAGATCAGGGAAAAATAAGCAGAAGACCAGGCCATTTNANTTGCNG
TGG

Sequence 789

CCGCGGTGGCGGCCGAGGTACCACAATCAACTCAATCACACATATTACAACAAAACCT
TCATCTTTTTCTTAACCCACTGTAACACAAAGCAGAGAATACAGATTAGCTTTTTATT
TGTCTGTTTGAATCATCTCTTACATACCTCTATTTAGTATCTATGATATTTTCTCTT
CTTATCTGTTCAATGACAGTCTTCCCTTTTAAATTTCTAACTTGTCAAGCACAGCANTT
AAAAAGTATTCTCATGTATATATTTTATCTTTAGAGCATCGCATAAAGNCTGATACATA
GGAAGTTTTAGATGCATATTTACATTGGGTAGATGAATCCAGGGGAAAAAG

Sequence 790

CCGCGGTGGCGGCCGCCCGGCGCAGGTACTGCCCAAGAGAGACGTCTCTTACTGCCTCATT
AAGCATTTGGAGCTGTAAACACAAATCAAGGCAACCAGAAAGGGCATCTTGGCTTCAGG

TABLE 1

127/467

CTGGGCATAACCATCCCATTGCGCACATAAAAGTCTAGTGGCTACTCTGCACCCCTTTCTG
GGTAGAAGCAGAGTTAGTTTGGTCATGGGGGCCCTGTGGGACAGTGTTGCCCAGACAGG
TACCTCGGCCGCTCTAGAACTAG

Sequence 791

AACCCACTATAGGGNTNATNGGAGCTCCCCGCGGTGGCGGCCGCCCTGGCAGGTACTGNC
TGTCTCAAATTTTTGGATACGCTGTCCCTCATGTACCTAGCTGCTGAGAGCTTTGTGAT
CCTAACAGGTGATGACTCAGACCGACACTGCATTGGTAGGAATCCACAAATAGGTGCCT
CAATGTGCCTAGATTGAAATATCAGCCTTTCCAGACTGACCTGATGGGTTGACTTCAGG
TGTGGTGTAACACCTACATTTTAAATGTAAACATTTCACTGTAAATCAATGAGAACTATCA
TTCTGCTTTAATCACCATGAGTTCTGAAATAACAAAGGATTTGTCTGACATTCATTCTAA
GAAATTCATTCTTACCTGACTAAGAACTTTTTAACCTGGCACAATAATAAGAAATGACC
TGGNAAGTACCTCGGCCGCTCTAAACTAAGGTGGGATCCCCC

Sequence 792

NGGCGAATTGGAGCTNCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGCAAATGTAA
GTTGGTAAAAGACATTGGACTCCAGCTATGTTCTTTAGAAAGAAGGTATTGGACTCTGGC
CATGTTCTTCAGAAAGACATGCCTGGCTTTTTCACGATTTGATCAGTCTTCTTAGACCC
TGAACCCCAACCATGAAATGGCTTCCCAGACACAACCCGAGAGAGTTATGCTTTGTTCT
CAGCTAAAATATTTTGCAGATCTTAATTTCTGGGTCATTGCATCATTTTTTTTTTTTTT
T

Sequence 793

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAGTATACCTTTT
CATTTAAATCATTGAACAGTTCACAATGGCTGTTGTAAAGTTTTTGCCTTGTTACTGAAA
CCATCATCTCTTGGTCTATTTCTATGGAGTTATTTTTCTAGTTATTGGCAGTTTGCTT
ATCTTTTATGTCTAATAACTTTTAATTGAATGTAGAACATTATGGATCTTATTTTTT
GAGAATCTGAATGTTTAAATTCCTTTGAAGAGTTTGTGTTTTCTTCTGGAGGCAGTTTA
CTTACTGGCTGTGAGCTCAGTCCTGTTGAGGCTGTTTNGCGACNNNCTGTGGCTTTGTCA
GGGTGGGGTGGTGGATCAGACATCTGGTCATCAAC

Sequence 794

ACNCCCGGCCAAAAGGGAGNNCACAGGGGGGGGCCAATATATAAGGGGGGCAAGGAGGGG
GGGNNGGGNAAAGANGNCAAACCCCNCCNNGGGNNGGGGGGGAGGGGNAANAAAGA
AGGNNGGGGNGNCCANGCAACCNAAGGGACNAACCAACANNNAAGCGGGGGAAGGGG
CACGANAGANANANANNANAGGNGANNCAAGAACCAANCAAGGGNNGGGGGGGAAGGGC
NNCAAANGGGNNNAANNGGCNCAGGNNACCNAANGGGGGGNNNGGGCANNAGAANGGG
GGNNGGGGNNANGGAAANNNAANNCNGGANNNAACCAAGGGGAAGGGAGGGGGNNGGAAA
NCAAGGCCCCCGGGGNCAAAAACAAAAGNNGGGGGGAAAANACAANCNGGGNNNGGNCA
GGAGGGGAGGNANAGCCGCGCGNAAAAAAAAAAAAACAANCCAGGGGCAANGGGGNNN
GGGGNNGGCNAANGCCNCCNNGGGGNAANCCCNANGGGNACCNNNGGAGGGNNGGGNNN
GGGGGGGCNCNGAAGGGAAAAANAACCCCAAGGGAAAAANCCANGGAANGGGNAANAAG
GGGGGNGGCAAGNNGGNANCCCGNAAAAANAAGGGGAAACNNGGGGANNGNCCCAAAAC
CCNNGG

Sequence 795

CCGCGGTGGCGGCCGAGGTACTATCTCTTAGGAGAAGGCTGACTTGAAGGCTGTGAAAAA
CTAAGAAAACACCAACCATTCACAGTATACTAGAATTCCTTTCAATGCATAATAGAAAC
AAGAAGGGATTAGAAAAGCATGTCATAATTTCCAGATAGCATAATTATTACATTAAAGA
TCCAAGAGACTCAGACCTAGTAAAAGATTTTGGCCACATTGTGACATTTGAGATCACATT
AAAAAAAAAAGGAAAAATCAAGNGATACTAACATCACCAATTAACATCATNAATTAGAA
AATTTATCCATCAGCNGTATTNNNNNGGGCTCAATGCNTTGAATGCCGCATTTCGGGAG
GC

Sequence 796

CCCCCCCCGAGTTTCAGCGAAAAANCCCGGCCGAGGNACCNCNCCNTTACNCCCAGGNTT
ANAAACNCCNNGGTNTNGNCCAGGAGAGGCGGGGGANACCGCGCCNNGGCCAGCANGGN

TABLE 1

128/467

CCCCTNCTAAATNNNGNNGTNNAAGGAANCNGGACCCCAAANNCNCGCCCCCACGAAAG
GAGCCTGGGAACCTACCAGGGCGTGAGCTCACCGNGCCCGGCGCTCTAGAACGAGAAGGA
ACCCCGGGGCTGCAGGAAAAACNATAACAAGCNAANCNAAACCGACCACCCCAAGGGGG
GGGCGCGGACCCAGCTGTTTGGGCCCTCAANACNAGGGAAAAATTGCGCGCTAAGNGCN
CAANCANGGGCCAAAANGCTGGNTNCCCCGGAGGGGAAAAAAGGACACTCCCGCGNCACA
AATTACCACNCAAAACATAACNGAAGCCGGNNAANCAATAAAANNGGGGAAAAANACCCC
NGGGGGTGGCCCTAAAAGGAGGGGGAGCCCAACCACCAACAAATAAATTGGGGG

Sequence 797

AGGTACTATCTCTTAGGAGAAGGCTGACTTGAAGGCTGTGAAAACTAAGAAAAACACCAA
CCATTCAACAGTATACTAGAATTCCTTTCAATGCATAATAGAAACAAGAAGGGATTAGAA
AAGCATGTCATAATTTCCAGATAGCATAATTATTTACATTAAAGATCCAAGAGACTCAGA
CCTAGTAAAAGATTTTGGCCACATTGTGACATTTGAGATCACATTAATAAAAAAAGGAA
AAATCAAGTGATACTAACATCACCAATTAACATCATCAATTAGAAAATTTATCCATCAGC
CGGGTGTGGG

Sequence 798

GCGGCCGAGGTACAATTCAACAATTNNTGGTCCAGGATCATGAATGGGCCATTNNTAGTT
CTGTGTGTGCTTAAACACATTTTTTGTGGGGTGTGTGGATGTGTGGATGTAGCCAAAA
AAAACCOCTATTGTGGGNTNGGTCCTGGGGCAGAAAGTCTGGTGCCAGAGAGTGGGGTTCT
GGGGGTCTGTCTTCATAGTTTGGGGTAGCACTAAAATCCTGTGAGCCTTTCTGGGCCTTG
GTAACCTCCCCTGTAAGTTAGCTGTTAGATAATTCAGCTGGGTAGCATTTTATACCTGGA
TGATGTTCTAAAGTCCAGCCACANAAGGCCNNNGTCTGGCAGAGTGAGAATTNCCTTTGA
AGAACCTTNAAACTGNTNCCCNAGAGTGACACAGGGGNNCCTNNGGGGAAAANCNAAAAG
NNNTTGGGAATTCTNTNCAAAAGNAAGNCCCATTTTTTTTGGCCNNNATTNNGGCCNCG
NTAATNCCCCNCCCAAGNAAAAANNAAAAAANTNTTTTTTTTTTTT

Sequence 799

CGGTGGCGGCCCGCCCGGGCTTGGTACCTCTGTACGGCTTCCCTTTGCTGGAAAAGGGA
ATTTCCCAACCCCGGGTGAGGCAATGCCCGCCCTGCTCCGTGGGCTGCACCTGCTGTCT
GTCAAGCCCCAATGAGATGAACCCTGTACGCGGGGGCTGGGATCTCAAAATGGCGGCC
CGTGCGGAAACAGCGTNTGGGAGCAGANATTGTTGCCTCCTGAA

Sequence 800

GGGCGNTTTGGAGCTCCCNCGGTGGCGGCCGGGCAGGTACTATCTGGAACNTGTAGCTT
CCTTTNGCACTGCAGCATGGGAAGCCAGAGTTGATGATTCATACACCAGCATTTACATT
TTCAGCATGAAAGTGGTATGTTCTTCAACTCACACCATTGGCCAGAACCAGTAACATG
ACTTCACCTAACTGCAAACTAGCTGGAGAATTGTGGGAGAGCTCATGG

Sequence 801

CCGCGGTGGCGGCCGAGGTACCATTTAGCACACAATTTCCATGTCCAAAAGCAACCCCC
ATAAACAGTGACTATTTTTATGCTGTTTTCTTTGCCCAACACTTTTATCATTTGATA
TGTTATATCTTGCTTTTTTTTTCTTTTTAATGGAGTCTCACTCTGTCACCCAGGCTG
CAGTGCAGTGGCGCGATCTTGGCTCACTGNAACCTCTGCCTCCTGGGTTCAAGCAATTCT
CCTGGGGGGTGGGGAGGTTTGCAAGTGATCCAAGATTGCGGCTCTTCACTCCAGACTGGG
NGAAAGAACGAACTCCATCTNAAAAAAAAAAAAAAAAAAGTACCTNCCCGGGCCGG
CCGCTCTANAACCTAGGTG

Sequence 802

CCGCGGTGGCGGCCGCCCGGGCAGGACGCGGGATGGTGTCAACTTATGTCAGGACCCATG
GGCCCTCCCATGCACACAGCACTCTTGAATCTCATCCTTTTCCATGGCTCTGGCTCAC
ACTTCACAGCATTTACTCCTAAATATGCCCCCTGGGTTCAAGGGTGATTCTCGTGCCTC
AGCCTCTCAGGTAACCTGGGATTACAGGCATGCACCACCATGCCTCGTATTTTTTTGTGT
GTGTGTTTAGTAGAGACGTGTTTCACTATGTTGTCCGGGCTGATCTCCAACCTCTGTAGT
CAAGTGATCTGCCCGCTCAGCCTCCCAAAGTGCTGGGATTATAGACATGAGCCACCACA
CCTGATGTCTGATGCTTATTTATTATGTGACCTTAGCGAAGTGTTGGGTAGTCATTAGTGC
TGGTCTATCTCTATACCTTCCCCAGGCAAGGTAGGATTGCACTTCCCGTCCACT

TABLE 1
129/467

Sequence 803

AACGACCGCCCGGGCAGGTAAGCCAGGACCTCAGTTAGCACTAAGCACTCTTACTAT
TGCCCCACCTGGCACAAAGCAAAGTGAATCTTAGTTGGGCCCATCATGTGTCATCTGA
TTGTCTTAGAAGTTCTTTTTTCTAAGACAGAGTTTTGCTCTTTGGCTCAGGCTGGAGT
CCAATGGCACAATCTCGGCTTACTGCAACCTCCGCCTCCAGGTTAAAAGCGATCCTCCC
GCCTCAGCCCTNCGAGTAGCCGGGACCACAGGCACCCGCCACCACGCCCGGNTAACCTT

Sequence 804

TACTATAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGCCCGGGCAAGGTAAGTCTCTAT
GACTATCAAGCTCAGGCCTCTCCCTTTTTTAAACCAAAGTCTGGCAACCAAGAGCAGCA
GCTCCATGGCTCCTTGCCCCAGATCAGCCTGGGTCAGGGGACATAGTGTCATTGTTTGG
AAATGCAGACCAAGGTGCGGGTCTATCCCACTTCCTAGTGCTCCCCACATTCCCCAT
CAGGGCTTCCTCACGTGGACAGGTGTGCTAGTCCAGGCAGTTCAGTTGCAGTTTCCTTGT
CCTCATGCTTCGGGGATGGGAGCCACGCCTGAAGTAGAGTTAGGCTGGATACATGTGCT
CACCTGCTGCTCTTGTCTTCTAAGAGACAGAGAGTGGGGCAGATGGAGGAGAAGAAAGT
GAGGAATGAAGTAGCATAGCATTCTGCCAAAAGGGGCCCCAGNTTCTTAATTTAAGCAAA
CTAAGAAG

Sequence 805

CCGGGCAGGTACAATGGACTTTGACAGTTCTTCCCAAACAGATCCTAATTTTAAACATTA
GGTTTGCTTTGATTCTTTTCTTGGGGCTAAGAGCTCACAAAGACTTAGGTTCTGGTCAT
GGCTCCAGAGGCCACACATTCCAGGACAAAGTCTCTCTACAGTCAACGCCTTAGTCCCAC
ATCTGTAAATCGGAATAATCATCCCTGATCCAGCTATCACATTGCAGTAGAGTGAGACT
CAAATGAGATAATGGAAGACAGTGGGAATGATCATTTCCAAGTTGGCCTGGCTGACCCAT
TCCTTGTTCTAAAGTCAGCTCAGGTTTACCTCTTCCAGNGAAGTTGACCTGGCACTTTC
TTTTAGGATGGCTACTGCTCCTCTGGGTGCCCGGGGCTCANTGTCTCCCCATCACCGCC
CATGGCACACTTGGAGTGACTGGTCCTTTACTTTGNTT

Sequence 806

TNCGGGCAAGGTACATTGGCCCCAAAGAGNAGGAATTCCTTGTAAGGAGCTTGATAGTG
CTTNCCCTCCAGCGGAGAAGCAGGCCAGAGAAACCTCCGAAGCGGGCCTCCGCCACTTTG
AGAGTGATGAAACCGTCATGGTGCTGGGAGCCTGGGGCAGGAGGTCACAAGAGTTGCC
CCAGGGCTGTGTTTTAGTTCTCCAGACAACCTCCCTTCCACTCTGGTCTCACACCCCCA
GCCTTACCCTGCGTCAGTGGACAAGGGGGTAGGAGCCTGCAGAGCAGAAAAGTACCT

Sequence 807

AGCNCCACCGCGGTGGCGGCCGANGTACGCGGGATATGTAGAACTTCACNNGTTTGAAGT
TGGCTGATTAAATATACTAAGTATTACTGAATCACTGCCCTGCCTTTCTGCTTCTTTA
CAGACCTGTTTAGTATACACTGTATGTATTTTTTTTTTTTTTTTGGAGACTCCGTCTCAA
AAAGAGAAAATTATGGGCCGGGCACAGTGGTTCATGCCTGTAATTCCAGCATTTTGGGAG
GCCGAGGCAGGTGGATCACCTGAGGTTGGGAGTTCGAGACTAGCTTGGCCAACATGACGA
AACCTGTNTGTACCTGCCCCG

Sequence 808

CCGCGGTGGCGGCCGAGGTACGAGACTTGTACCATGTGACATGGCAGCTTCAGAAACTT
AGCCACTGCCAAAAAAGAGCAGGCAGGGATAATGTTGTCCATTGTCCAGTCAGAGAGA
CCTGTTGAGTCTCTAGTTGCCAGTCCCCAAGAGACCTTTGGAGTTTTGCTGGAGCCAGA
CATCCTGCTTAGAGATGAGGAAGATCCTGCTGTTCCGTGGGGAGCTCTTGAGACACCCGT
GCCACCACCCACCTTCTCCTGATTGCCACTTGCTGCCCTTTTCCATTACCCTCTCCTGA
CTCCATAAACATCTTCAAGTCTTCCCTTCTCCACCCCCAAAAATGCCACCTTGGAAAG
GG

Sequence 809

AAATTAATTGGGGTTGNGCTAACTGCCCGGTTTTCAATCNNGNAAACCTTGTGGGGCCCA
NNTGAATTAANANAATNGNCCACCCCCCGGGGAAAAGGGNGGTTTTNNAANTTTTGGG
GCCTTTTTCCCTTTTTTAAAAA

Sequence 810

TABLE 1

130/467

CCGCGGTGGCGGCCGCCCGGNCACGGTACGCGGGGATGTCTTCTGAGAGAGTCAGGGCAG
CTGAAGACTGGGTGAGGGTGAGGGAAGCCGCTGGTGTCTCCTCAGTCACCCGTGAGAGG
ACTCCTNTGTGGAGCTAATCAACTGCAAGGAAGATTGTTCCAGTGTCCAGACCTGAAGG
AGTCTGGACCCATAGTGCANTGAGATTGGGGAAGGAAGGATTCCGGATAGGGGTGAGCT
TTNTGNTGATAAGCAAATGTGAAC

Sequence 811

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGTGTATGGAAGCCAGTAACACTG
TGGCCTACTATCTCTTCCGTGGTGCCATCTACATTTTTGGGACTCGGGAATTATGAGGTA
GAGGTGGAGGCGGAGCCGGATGTCAGAGGTCTGAAATAGTCACCATGGGGGAAAATGAT
CCGCCTGCTGTTGAAGCCCCCTTNTNATTCCGATCGCTTTTTGGCCTTGATGATTTGAAA
ATA

Sequence 812

CCNTCAGGTACCAGANCTTAGCAGGGATTTTGGACAACAAAAGCTCTAAATCCTCTTGCA
TCGACACGTTCAATTTGCACTGACCAATCTGTTGGCACAGTAACTGTTTATAAGCTAAAT
TTCTACATTTTGGCTACAAGTATCCCAAATCCACCTTTAAAAAATCCTAGGTAGATGCC
ATCTGGTGTTAATGATTGTCACACCCCTTAAATTGAAAATATTTTAAATAAATCTCACGG
TTTTATATAGTATCATTAAATGTGTCTATTTTAAAAAGACAATCTGAGAATAACACTTCCC
CTAATTGTTGTCTTAATAATGACCAAGAGCTGAGGAAAAATGATTACACTGTTAGTTGT
TTTGTGTTTTGCTCACGGGGGAAGGGGGTGAAGTACTGGCTGTGCCTGGGTTTG

Sequence 813

CCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAA
GGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCC
GTGTCGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGGTGGAGCAA
GTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTG
GTGGACATCCATGTGGCAGAAATGGAGTCAGTTTATCAACCAACAAGCAGCTCCAGC
ACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCCAGGACAAAGCC
CAGCCAGGCACCACCAATTACCAGAGGAACAAA

Sequence 814

CCGCGGTGGCGGCCGAGGTACATTATTCATATCCAGCACTCCCTGCGGCTGCTGCTGGAG
GAGCAGTTATCCAACAAGGACTGTTTCAACCTCATCGCTTTGGAAGCACAATTGAAAGC
TGGAGGCCTGAGATGGTTCCCGTGAGTCACAACAATTTACAAAGTGCCTGGCGGTAGGTT
ATGGGCAGAGACTTCGTGGGGCTGTGTCTGAGGGAAGGTTTGCAGGCATTGTTTCTCTG
TCCCCCTCTCCACCAAGAAGTAGCTCTCTAGAGTCCCTGACCCCAAACAGCCATGGGCAG
AAATCAGAAAACAGCTTCTTCTGTCTGCTGCTCTCCCCACCTGGCCATCTTCACTTTAT
GAGAGTAATGACATCGACTCCATCAGCTCTGAGATGGGAAAAAGGCTCTCAGCTACTCC
CAAAAGGGTATGCCCTGGGCATGGG

Sequence 815

CCGCGGTGGCGGCCGAGGTACTCTTTTTTTTTTTTTTTTTTTTGGAGACAGGGTTTCTGTT
GCCCAGGCTGGAGTGCACTGGCACAATCTCAGCCACTGCAGCCTCCGCCTCCCAGTTCC
CAATAATTCTCATGCCTCAGCCTCCCAAAGTGGTGGGATTACAGGCGTGAGCCACTGCGC
CCGGCCACCTTTCTATTTTTCTGGTTAACTTTCTAAATGTTTGAATGGCTTCCAGTGAA
TTTCATTTTATTATTGGGGGAACTTCCATACTTATTTTCTTTCTTCCCAAATCTCCACA
AGTATACTCTCCTCCCAAATTTAGATAGTTGTATTTTTCTGATTATTCCAAATAAGAGT
GCTGAGAGGCTAATCACAAGAGCAACAGCCAGAGATTTACAAAGTGGTTCTCTTACTAT
TGAACATTTTCACTTAT

Sequence 816

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTGCCAGGTAAGATCAC
TCGTGGGTAAAGAACATGAGGTTCTACCCGTAAGGCAGGATTTTTATAGAAGGAAGGTAG
GTCTTTCAACCTATGTCCTCCTTCTGTTCCACAAAGTGAAAGCCACAAGCCCTACAAAA
GCCTTGCAAGTCCCAGAGGCTGCAGCCGTATTTATTCTTCAGGCCAAGACTCTCAGGACA
GAGAGCACCCATGCACCCCGCAGGCTGCAGGCCATCTCCCTGCATTTGGGACTGTCCTGA

TABLE 1

131/467

GGATGGCGGCTTCATTTTTGTCCCTCCTACCTCTGA

Sequence 817

GAACCTAGGGCGATTTGGAGCTACCCNCGGTGGCGGCCGAGGTACATTTTGGCAAACCGT
GAAGGGCTTTCNTTTTNGCAGGTTGGACTTCCCCCCCCTAGTNGGCAGGATTTTTTTTAG
GGGACCACCTGAGAAAGGTCTGTTACCGTGCATAAACCTCCTTTAACACCTTTTAAAAAC
TCTTCTGGGGGCCGGACTCAGTGGCTCATGCCTGTAATCCCACCACTTTGGGAGGCTGAG
GCAGATGGATCACCTGAAGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCC
GTCTCTACTAAAAATAGAAAAATTAGCCAGGAGTGGTGGCAGGTCCCTGTAATCCCACT
ACTTGGGAGGCTGAGGCAGGAGAATTGCTTGAACCCAGGAGGC

Sequence 818

GCCAGGAAACCCGTAAAAAGGGCCCGNTTGTGGCGGTTTTTTTCCATAAGGGTTTCCG
CCCCCTTGACCGAGGCANTTAACAAAAAATNGACNGCTTCAANGTCAGAAGGTGGGC

Sequence 819

CCCCCGGTGGCGGCCCGCCGGGCAGGTACTGGGAAATGAGGCAAAAGTNTNTCTCTTCA
CTGCTAGCTCCTTGGGGACCAGCAAGCGGCTCTCAAGTTGCGTGGTGGCCCACTGGAAA
AAAGGCAGTTCGGTGCATCCTGGGAATATCCAGGTGAAAGTGTGAGATTTACCTAGAATA
GCTTCTGGGCCTCTGGGGTTTTTACGCTGTCTCTGGTGAAGGTGTCCATTTTAGAAGTGA
AGCAAAAAGGTTTCAATCCGTTCCGTTTTCTTTGTTTTAGCACTTACCCAGNNNCCTCC
ATAACAAAGGTGGNGCCCTTCAGGGAAATTAATTTTTTTTTTTCNTAAAGGCCTTGGCAT
TAANCCNTTTTTTTTGNNGGNNGGGNAANTTTTTTTTTTTT

Sequence 820

TAGGGCGNTTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACAT
CCAGGNCAAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACGCATTCCGCTTCTG
TCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTC
CAATTTGGACCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATT
CCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATC
AGTTTATCAACCAACAAGCAGTTCAGCACCCAGCACTTTTTACCTGAATTTTAC

Sequence 821

CCGCGGTGGCGGCCCGCCCGGGCAGGTACGCGGGCATGCAAACTCCAGATTCCTATCTTC
TTTGGGGGAAAAGCAAATTGGAAGCTCTGACAATGCTGGGCTTTACTTTCCACATAGCA
ACCATCAGTTGGAGCTGAGACACCTCTGCTCTCTTAGAAAGAATTATTAATGCTTCAGT
CTCCATTATTGCTTCCCTAACAGTGAGGATAAGTTATTGGCATCAANCCTGGCCGGTTTA
NCTTGGGGGTTTATTTTNTNNNTTTGGGGCCTNAAAACCCCGGGGGGNNCCTTTTTGGCN
CNGNGGGGGGGGGGAANTNTNNNANNANGGNGGGGGGGGTTTNTCTCNNCCCCCCCCCA
CNTNTTTTTTTTTTTTTTTT

Sequence 822

CCGGCAGGTACGCGGGGAGGTGATGCCCCGTGTGAGCCAGGAAAGGGCTGTGTTTATGGGA
AGCCAGTAACACTGTGGCCTACTATCTCTTCCGTGGTGCCATCTACATTTTGGGACTCG
GGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAGGTCCTGAAATAGTCACCA
TGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCATTCCGATCGCTTTTGGCC
TTGATGATTTGAAAATAAGTCCTGTTGCACCANATGCAGATGCTGNTGCTGCACAGANCC
TGTCAGTCTGCCATTGAAGTTTTTTCCAATCATCGTCATTGGGATCATTGCATTGATA
TTAGCACTGGCCATTGGTCTGGGCATNCACTTTCGACTGCTCAGGGAAGTACCTCGGCCG
CT

Sequence 823

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGTGTT
AGCTATTATCATCACCTCCTTGCTAGGCAGAGCAGGACAGTGGGGAATTGATGTTTCTCCT
CCCCCTCATCTCACAGGTGGGGCAGGGGTGTGCTGAGAAGAGAACTTGGGACTCTTGGCC
CCTGTTCAATTCTCTGCTTAACCTGCTAGGCAATTTGGGCCTCTGAAAATTCAGTAATCC
TCATAGCAACTTAGACGTCACCTGGGCCTGTGGTCCCCTTCTAGCCTAGGAGTCAGAGC
ATGAAGCTCCATCTGTCACATTGGTTTGTTCAGAGAACTACACATGCGTTTTATTTAGC

TABLE 1

132/467

AGCATACAGGTTCCCACTTAGGCATTGAGAGGACATAGGAAGCTGTTTAACTTCCTA

Sequence 824

ATCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTATTATTTA
AATTCCACTCATAACTTATCGGCCAAAAGTAGTCACATGGCTCCACCTAATCACAAGTGG
AGCGGGAAGTGCAATCCTACCTTGCCTGGGGAAGGTATAGAGATAGACCAGCACTAATGA
CTACCACACTTCGCTAAGGTCACATAATAAATAAGCATCAGACATCAGGTGTGGTGGCTC
ATGTCTATAATCCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACTTGACTACAGGAGT
TGGAGATCAGCCCCGACAACATAGTGAACACGTCTCTACTAAAAACACACGCAAAAAA
TACGAGGCATGGTGGTGCATGCCTGTAATCCCAAGTTACCTGAGAGGCTGAGGCACGAGAA
TCACCCCTGAACCCAGGAGGCAGAGGTTGCAGTGACCGATATCATGTCACTGCAGTCCAG
CCTGGGTGACAGAGCGAGACCTTGTCTNAAAAAAAAAAAAAGAAA

Sequence 825

CCGCGGTGGCGGCCGAGGTACAGATGTATGGATCTCATAGCATTGAGGGGTCTTTCAGAT
TATGTTTTCAAACCCCTCACTTTCTCTTTTCAGATAAGACCACAGCGACCTGGGAAAGTG
CAACGTCTTAGCCAAAGACACAGAAGTATTTAGCGACACTGTCTAGACTCTAGTTTCCAT
GTCTCCTGACTTCAGTCTAGTGTTCACCCCTGCCGCCACCCCTGCCCATCCTCATT
CTCCTGTAGGAGAGGCCAGACCTTTCCTGCTGCAGCTTGTGGCTCTTCTCCTGCCTTCA
GTTNTTCCATTGCCTG

Sequence 826

GGGNNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCAGGTACCTGTCTGGGCAACACT
GTCCCGNNGGGGCCCCCATGACCAAATAACTCTGCTTCTACCCAGAAAGGGTGCAGAGT
GGCCACTAGACTTTTATGTGGCAAATGGGATGGTTATGCCAGCCTGAAGCCAAGATGCC
CTTCTGGTTGCCTTGATTGTGTTTAACAGCTCCAAATGCTTAATGAGGCAGTAAGAGA
CGTCTCTCTTGGGCAGTACCT

Sequence 827

CNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTGGTGGTGTGGCTACTACCGTTACA
ACTGCCTGTGCTTGGACATGGACCTCTGCAATATGCGGCAGTTTCATTCAATTGCCCCCT
ACATTCTACACCAAGTAGAAATGGAAGGCAATTGGATACTTCACAGACAAGATCTAAGTG
GAGAAGGAATGCGTCCTGTGGCTGCAGAGATCCTTGGAGCTTGGAGGGGAGAGCTTGAGC
CCCACTGATGATGACCTCCACAGCTCGCCAACCTCAGCCCTCCCTAAGTCCCCATCGGGG
GCCAATTCTCACTCTGGGGTTGGGGGACTCCACCATAGCTCATCCATCATAGGGGATGT
TGGTATCTACTGTGGGTTTGGGTAGGGCCCGATGTGCTGAGGATGGCTCCCCACAAGCA
AGAGATGTGGGATTGG

Sequence 828

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACA
TCCAGGACAAGGTCAACCACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCT
GCCTGGTCACCAACTTGACGATGGAATCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCT
CCAATTTGGACCCCAGCCTGGTGGAGCANGTCTTTCNAGATANGACCCTGAATGCCTNAT
TCCATTGGGCTGGGGCTTCCACCTACCAAGTTGGGTGGGACATCCATGTGACAGAAATGG
AGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTNACTGAATTTTA
CCATCACCAACCTACCATATTCCCAGGACAAAGCCAGCCCCGCCCCCCCC

Sequence 829

CGAATTGGAGCTCCCCGCGGNGGCGGCCGAGGTACCTGATCTACTCCTCTCTACAACAAC
CTTGTGGGTGACGTTATTATCTCCATTTACAAATGAGGCCACAGAGGTTCTAAAGGGTA
AATGACGATGATGATGAGAGGTAAGTGATAAAACAATGTCTCCTGACCACAAATCCTGGA
ATTTAAACATAAGNGTAGTAAACATGAACTCTAGGAAGCCTCCTGGGGCTTCTNCCTGTG
TCTGGAGCCCCTGCACATGCCCAAAGGAAGTCCTTTGGTTCTNCGNTCAGNAGAGAAAG
GGNGCATTTCATAAAAGGGAGGTGGGGAAACAAGACTGGTGGTAGGG

Sequence 830

CCGCGGTGGCGGCCGAGGTACATTATTCATATCCAGCACTCCCTGCGGCTGCTGCTGGAG
GAGCAGTTATCCAACAAGGACTGTTTCAACCTCATCGCGTTTGAAGCACAATTGAAAGC

TABLE 1
133/467

TGGAGGCCTGAGATGGTTCCCGTGAGTCACAACAATTTACAAAGTGCCTGGCGGTAGGTT
ATGGGCAGAGACTTCGTGGGGCTGTGTCTGAGGGAAGGTTTGCAGGCATTGTTTTCTCTG
TCCCCCTCTCCACCAAGAAGTAGCTCTCTAGAGTCCCTGACCCCAAACAGCCATGGGCAG
AAATCAGAAAACAGCTTCCTTCTGTCTGCTGCTCTCCCCACCTGGCCATCTTCACTTTAT
GAGAGTAATGACATCGACTCCATTCACGTCTGAGATGGAAAAGGCTCTCAGCTACTCCCA
AAAGGTATGCCCTGGGCATGG

Sequence 831

CCGCGGTGGCGGCCGAGGTACGCGGGTAACAGGAGTCTTTGCTGAGTGATCATCTGTTTA
TTCTTTTACTCCACAAATATCGAATGTTTACAGCGTGCCTGGCACTGAGCAGGGCTGGGG
TTTCTGACCATATGGACCTTCTGGGTATATCTGTGGGGCTGAATGGTGTGTGACCTT
GTGTCCTGCCCC

Sequence 832

CGGGCAGGTNCGCGGGGGTGTATGGGAAGCCAGTAACACTGTGGCCTACTATCTCTTC
CGTGGTGCCATCTACATTTTTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCC
GGATGTCAGAGGTCCTGAAATAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGC
CCCCTTCTCATTCCGATCGCTTTTGGCCTTGATGATTTGAAAATAAGTCCTGTTGCACC
AGATGCAGATGCTGTTGCTTGCACAGATCCTGTCACTGCTGCCATTGAAAGTTTTTNC
ATCATCGNCATTGGGATCATTGCATTGGATATTAACCCCTGGNCAATNGGCTTGGGCATT
CAATTTGACTTGNTAAGGGAAGTNCCTCGGCCGNTNTANAAGTAGNGGGATCCCCCGGT
GGANGAATTTCAATTTNAACTTATTGATACCGTCCANCCTTGNGGGGGG

Sequence 833

ACCGCNGTGGCGGCCGCCGGGCAGGTACATCACCCCTGCTGAGGGACTTTTNGGACAAG
GTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACC
AACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGAC
CCCAGCCTGGTGGAGCAAGTCTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTG
GGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTTATCA
AC

Sequence 834

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACCTTACCACCC
CATCCCCAGAGCATTGCATGGGGTGTGGGCACACAGTAGGTGCTCAATGTAAACGTGTG
CACTGTGGCATGTTAGAGCCAGACAGGATCTCATCCAGCCGTTCTCTGCACCCCTCCCT
CCCTCTCCAAGTAGCCCTGCTGTGGGTTCAAGTAAAGAGGGGCTGGGGCGCTGGTCTGA
TTGTGTGGGTGATTTGGGGAGATCTTCTCCTCTTCCGGAACCCCAAAGGTTGGGACAAA
CACAGCAACAAGCCCAGCTCCCTGAATTCAGTGATTCATTTGTGGGGATAAAGGAGTGA
ATG

Sequence 835

CCGCGGTGGCGGCCGCCGGGCAGGTACTAGTTATTTTAAATTCCAATCATACTTATCG
GCCAAAAGTAGTCACATGGCTCCACCTAATCACAAGTGGAGCGGGAAGTGCAATCCTACC
TTGCCTGGGGAAGGTATAGAGATAGACCAGCACTAATGACTACCACACTTCGCTAAGGTC
ACATAATAAATAAGCATCAGACATCAGGTGTGGTGGCTCATGTCTATAATCCCAGCACTT
TGGGAGGCTGAGGCGGGCAGATCACTTGACTACAGGAGTTGGAGATCAGCCCGGACAACA
TAGTGAACACGTCTCTACTAAAAACACACGCAAAAAAATACGAGGCATGGTGGTGCATG
CCTGTAATCCCAGTTACCTGAGAGGCTGAGGCACGAGAATCACCCCTGAACCCAGGAGGC
AGAGGTTGCAGTGACCGATATCATGTCACTGCAGTCCAGCCTGGGGTGACAGAGCGAGAC
CTTTGTTTCAAAAAAAAAGAAG

Sequence 836

GNNGNGGCGGCCGAGGTACTTTAACANGCCATACTCCAGTCCCAACAATGTTAAATGCCA
AAGCAGTGTTGGTAAAGCCTCAAATGGTGAAAAGGACAGAACTCAAACCCGCCCTTGT
GCCAGTAAGTAAGTGTACTTATCTACAAAGCGCTTGGCTCTGGAAACAATCTAACTCT
GAGCTGCACGTGGAGTCTACATGGGAATGTGCAAAGCATGTATTTCTTTTAGGTGCAGC
AGAGGTAACCGAAATTCAGATAAGAGAAAAAATCCAGATTTCAATGCAAGAGGTGGAA

TABLE 1
134/467

GATCCACGAAGATACTCGTTACTATTTGGTTTCTAGGAGCAGGATTGCCACTAGATATGA
TGGAGAACAAAAATGAAGAGGTGTTGTGTAAACAAAACAAAACAAAACAAAAAAGT
AGAAAGAAAGAGCAACAGGCCGGCCGAGTANCTTCATGCCTGTAATCCCAGCACTTTT
GGGGAGGCCAG

Sequence 837

NTTGCGTTGCGCTNACTGNCCCCGCTTTCAGTNCGGNGTAAACCTGTCGTGCCAGCCTG
CATTAAATGAAATCGGCNCAACGCGCGGGTGAGAGGCCGGTTTTCGTATTTGGGCCGCTCT
TCCCGCTTCTTCGCTCACCTGACTCCGCTGCGCCTCGGGTCGT

Sequence 838

CGCGGTGGCGGCCGAGGTACTAGGCACTGAAGATACAATAAGCAATCCAGNAATNCCTCT
TTGAAGAATTTATTTCTGATGAAATAGAGACAAGCCTATTAAGTATTCAAGGCAACATTA
CTTAAATATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTT
CTGAAGTG

Sequence 839

AGGTACCTGTAGTCCANTTACTTTGGAGGCTAAGGTGGGAGGATGGCTTGTGCCAGGA
GGCGGAGGTCACAGTGAGCCGAGATCACACCACTGCACTCCAGCCTGGGCAATAGAGCCA
GGCCTTGTCTCATAAATGAAATATAAAATATAAAATAAAAATAAAAACGTTGTTGGC
AAAGATGTATTCAAAATAGTATGTAGAAGTACCTGGAAGGTAATTTTGAATATTTACC
AAAATATACTTTTTCATCTAGTAAGGTCTCCTTCTCAGAATCAGTCTTAAAGCCATTCAA
ATACAGATTTATGATTAAAGATTTAAGTCCAAAAATGCTCATTATAGCAATATTTATAAT
AGGAAAAATTGGGGAAAAACAATTATACATCCAACAGTAGTAAGAGTGTGACTACATTAT
AGTATTAGTATGTAATGGGATTGTACAGAGCAACACACATGTTTTTGAAGAATATTTAA
GGGCGTGATAAATATTAATGTAAATGTAAATTGAAAAATGATATCTGTAGATTTTCAT
TATGCATTTCTTTATGAAATTTTNGATATACACAAAANAAAATAGTCATGCATTTGCTT
CATGACGGGGACATATTTCTGAGAAATGTGCTGTTAGTCGGTTTC

Sequence 840

GGCGGCCCGCCGGGCAGGNACANCTTCCGTGGGGGGGCNAAAACCCCCACCNAANCAA
AANAGCANCAAAGGAAGAATTNNTTAAGGGCAGGGGGGGGAAGCCCCNAAAACCCNGANG
GCAANNCCAGAGCNGNGGNNNAGCNCNAGNNNCNGGGAAGAGCAANCANNACCTTTTG
TGAGGTTTNGGNGNNGGAGGGGGGGAACCCCCCGANAAAAAACCCAGNAGCCCCCCCA
CNNAACAGGGGGANGAANAAGAGGAAGGNAAGGANNNNAANNAAGAGCCACAGNCCNGGAA
ACANGAAANCANNANNNCAGACANGCCNNNGAANANGNNGCCNACNNNAAAAGAAGGNNN
GGNGCGCCANNGGGGAGNAAANNGGAANNANNAAAAAAAGGAAAANGNGAANGAAN
GAGGANAANANNNGGGGAGGGGNAANGGGGCGGGGNNNAANGCCNAANAANANNNAGN
NNNNGGGGAGGGCCNG

Sequence 841

AGGTACCTTACCACCCCATCCCCAGAGCATTGCATGGGGTGTTTGGCACACAGTAGGTGC
TCAATGTAAACGTGTGCACTGTGGCATGTTAGAGCCAGACAGGATCTCATCCAGCCCGTT
CTCTGCACCCCTCCCTCCCCTCTCCAAGTAGCCCTGCTGTGGGTTCAAGTAAAGAGGGGC
TGGGGCGCTGGTCTGATTGTGTGGGTGATTTGGGGAGATCTCTTCTCTCCGGAACCCC
AAAAGGTTGGGACAAACACAGCAACAAGCCCAGCTCCCTGAATTTCAAGTATTCATTTGT
GGGATAAAGGAGTGAATGATAAGTGAAGGACGACTGTCCCCGCG

Sequence 842

TAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGAGGTACTCCAAAAGGCTATGAAATN
GGGGAAAACCCAGGTGATTCATGCCTGCTTAGCTGCAGNATNTCAGTNGCANTAGGTGG
AACCCCAAACCCAGNGCANAGTGCCAGNGTCTGCTTNGGTGAGATATGAGTGTCAAGTCT
CGAACCAAGCAACCTATCNAAAGCCTGNGACACTCCTGGCCACAGGCGGNTGGTANAGGC
ATAGNANACTATTGCCAGGTGACGTGACTTCACAGATGCTGGGAAGCCTGCTGCCCCAT
CCAATACAATACTGCCCACTGTGCATAGAAACCAGATTCCAAAGTTAGAGCTTCGTTTTG
GCCATGAGTGCAATTTCACTGCAATGTTTTATCTTACTCAACTGCCAGGGTCAATTTAGG
TGGTAGGGCTAAATCTCCTTCTTTATATTGGTCCAAATGATTTTTCTGATGCTGCATTC

TABLE 1
135/467

CCGGA**Sequence 843**

CCGCGGTGGCGGCCGCCGCGGGCAGGTACTGTGCTTAGACCAGGAACACAGGGAGGTAGAG
GGCAGCAGAGCAGGGACTGGCTTCAGAGCCAGACAGGTGGCTATGTGACTTAATGTGTCT
GAACCCTGGTATCCTAGTCTATTAATGGTATAACAGCAGCTTCTAGTATGTAAGTTCCT
TGTCGGGAGAAAACTGTTTTGCTCATGGCTGGAGCCTTAGCATGTTGCATCATATTGAA
CATGTAATAGATGCTCAATAAATATATTTTTAAGAATAAATAAATGTAAATGAAAATTAC
TTCACAGTGTCTGTAGAGATTTTATAAGATATGGTATACACAATGCATAACATAGGAA
CTGACGCTCAAAAATGCCAGTTACTTCCATCATTGNGTCATAGGCTTTTATGTTTCATTAT
CCTGCTGCATCATCCCAAAGAA

Sequence 844

CCGCGGTGGCGGCCGAGGTACGCGGGGAGGTCATGCCCGTGTGAGCCAGGAAAGGGCTGT
GTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTCTTCCGNGGTGCCATCTACATTT
TTGGGACTCGGGAATTATGAGGTAGAGGTGGAGCGGAGCCGATGTCAGAGGTCTCTGAA
NTAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCATTCCGATCG
CTTTTGGCCTTGATGATTTGAAAATAAGTCCTGTTGCACCAGATGCANATGCTGTTGCT
GCACAGATCCTGTCACTGCTGCCATTGAA

Sequence 845

CCGCGGTGGCGGCCGCCGCGGGCAGGTACTTCTAACCCTAAGGGATTCTACAGCTTTTTCT
GCATGTTAAATAGTCTGTTTAGCTTATTCTCTTATTACTTGTCTTGGTTTTTACTTTGA
AAGTTTGCTTAATAATCATGGGAATATTTTAGATTTTAAATACAAAATATACAAGCTAA
ACTTGAGAGCAGTTTTTAGTTGTAGAACTGTTTCTTGAAGTAATTGACTTAGCGTTTGC
TCTGCCTCTTTCTTTCTTACCTAGGTAGGTAGTGGGGACTCCTTCAATTATCTGAGCAA
TTCAAATCTCAGAAATGTAGTGTGGGTAAATTGAGGGTT

Sequence 846

CCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACA
CTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACG
ATGGAATCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCCAGCCTG
GTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACC
TACCAGTTGGNGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGC
AGCTCCAGCACCCAGCACTTCTACCTGAATTTACCA

Sequence 847

TGGAGCTCNCCGCGGTGGCGGCCGNGGTACTCCAAGCAGTCCCAAAGTGGGAGTNCTTAA
AACACCATGGGCAGGTGAATGGCTGACCAGGTGGAGGTGCACAGTGCACCATGACAAGAG
CAGTGGAAAATGGGTGAATCTGAGATGCCTGGAGGCGAGGGGGGAAAGAGCACATCACAGA
GGACAACGTCCANNGGACACCCCTTTTATA

Sequence 848

CCGCGGTGGCGGCTGTGGACTGAAGGGTGAAGTGGTTCCACTGTGGTCTCCATGGGAACAA
GTTGTTTCTGGAGTCTTCCAAGGAGAATTTCTCACAGTGGACCTGATCTCTGGGCTGATG
CTGGGTTCTTGGAGCTCATGATTTTGAAGTGGTAGACATTTCTGGGCTTCTGGGGAT
GTGCCTGCTGGACTGCTCCCCGTCTCCTCTGCTGGGGCAGGCCACGTGGAATTTCTTGT
GCTGCCTGGCTTGACATCTTA

Sequence 849

CCGCGGTGGCGGCCGAGGTACCTGAAGAATCTCTCTTCAGCTCTCTTCTCCTGGAAACTT
GAGTGGGGCAGGAGGAAAAGCGGAGCTAGGTGTCATTTTAATGAGGAACATACTTGTCTC
CTCCATTTATCTGGCCCTCCCTGATGGCACTCCAGAATCCAATCCCACACGATTAACAA
CATAGTTTCCCTTTTCTGCTTGAAGGTCCATTCTCCTCTCAATTTCAAATCACCTGAGAT
ACAAAGCTGCATTTCCCCACAAGAACCAGTTCCTCTCCTTTCTTCAAGTGCTACTGTCC
TTCTCTCAGACCACCAAGCTTAAAACTCCAGAGGCTCAAACAGCAAAGATGGCAGCCCG
CTCCTCCCTCTGGGGAGTTCTGGCCAGGGAGTTTCAAATTTCTGTAGGCGGAAGAATA
CTAGCGGGGAGTGGCTGGAGACCCAGTTGGTAGGGNTCCACATTTGGGGGAAGTGAGCC

CAAGCTTTTN

CCGGGCAGGTACATGAAAGTAAGATCACAAACCACAGGAACCACACAAAATTCAAGGCACC
AGAGGAGCCAGACTTGGCTGGCAATGCCTGTTTTGGAGCTATTCCACATTTCTGGAAGT
CAATGGGAATACCGGAATATGAAAACTATGAGGCCGGGCACAGTGGCTCACGCCTGTA
ATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCATGAGGTGAGGAGTTCGAGACTAGC
CTGGCCAACATAGTGAAACCCCATCTTTAATAAAAAATACAAAAAATTAGCCGGGCGTGGT
GGGGGGTGCCTGTAATCCCAGCTACTCCGGCGGCTGAGGCAGGAGAATTGCTTGACCTC
GGC

CCGGGCAGGTACTTTTCTTTTTCTTTTTTTTTTGTAGTGGGGCGGGGTTTCGCCA
TGTTGGCCAGGCTGGTCTTGAATCTCGGGTGATCTGCCCGCCTCGGCCTCCAGGGTGCT
GGGATTGCAGGCGTGAGCCACCACGCCCGGCCTCGATATATTCTTACAGTGAATACTGC
TCAGAAATACTGATGAATCTTAAAAAACATGATGTTTAGCAAAAGAACCTTGGTATAAGG
TTCTTGGTATAAGGGATACATACTCTATGATTCCATTATATGAAATTCTAGAACAGGAAA
AACTATAGTGAAAAACAATCAGATTAGTGGTATCTGGGGTAGAAAGTAGGAGGAGATTGA

CNANAGGGGCTTTTTGGGGGGCAAAACCGCGGNGGCGGCCGCNCNAGAACNAGNGGANCCCT
 NTTGGGGGGGGAAAAAAACCCCAAGCCCACCGANACCGNCGACCNCGAGGGGGGTNCCGG
 NACCCAGNGNNNGNCCCCTAAANAGAGGGNNAANNGCGCGCNGGCGNAANCANGGNCAN
 AGCNGNNGNNCCNGNGNAGAAANNNGANCCGCNCACAATTTNTCTTTTNTAGNCGAGCCGGG
 AGCAGAAAGCCCNAGAAAAAAGN

AGGTACCCACAGCCCTTTCTTTTGAATTCCCTAGAAAGGGGTCTGTGCCACATACAGGAA
GTAGGGAGGGTGTCTTTGCAGCATATTTCTTCTTTGGAGTTAACTGCGAACGTTGCACG
GCGACCTCTTGATCCATTCTGTGAAAGCCCCAAGCCTGTCATGCAATAAAGACGTCCAGT
TTCACCGCAGCAGGGAGGCCGCATGAAATATTCACCTTGAACAAAACCACTTAGCAGTTT
ACATCAATGCTTACCCTGTCGCATTGAAAGTGATGTGAACCCACACCCAAGAGCCCCCAA
ACCAGCACGTTGATACCAAGTTTCCCCAGCTGCATCCAAATCAATTCTTCTT

[illegible]

CCGGGCAGGTACGCGGGCTACACACACAGTTTCGGATGCCAAGGGTGACACCCCATTCCT
TCACAAGAGGCGGTTCTGTCAAAATCAGCACTCCACCCCCACCACACCTCTCAGTGAAT
GAAGTGCTGGTGGTCTCACTCCCCTGGTGACCTTAGCCGTGGGATGGGGTGGTTACACT
AAGGCTTCAAGCTGAGAATGGCCATCATGGCGGGAGGCTGTTTGCAAAGGCACCTTCTGT
CATCCTGGGGTTGGCTAAGTCAACTCCACCCCTTCCCAAAAAAAAAAAAAAAAAAGTACCT

GCCAGGATTCAAACCAGGGANTTTGCTCCAGCACTCCGGCTCTTAACCTCAACCGTCTGC
CTCTCCACAAACACCAGGATCAACCACCAAGACCAAAAAACAGTCTCACAAACCATCAA
ACATTGCACCTTGGTGGCTCAGGACCTTAGCTTCGTCTTAAAGGTCCCTGTTATGCTTTT
CTTTTGCCCCAGTGTGGAGTGGTCTTCGTGTTTGTGAGTGCAGGGGTCAGGGGTTGTG
CTTTCTTCTGTNCCCTTCCAAGAGGTGACATGTATCCTTGATACTGGAAGGGCCCTT

Sequence 857

Sequence 864

TABLE 1
138/467

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAGAGTCAGCAG
AAATGTGTGCTTTAAGCAGAGTCACAGGGGCTGGGGCTGAACTGAGTCATTTCTCAAAG
ATATCCCTGCCTGGGATGATGATGGCTCTAATTGAAGCTCTGGCATCATCTGGGGCTTTA
TGAGCCAAGGGAGATAAGAAGAGCCACAGCAAAACCCTTGGGTCTACAGTGCAAGGCTGCA
ACCAAGGCAGCATTTGCTAGAATATTTGTGATTATGTGTTCAACCTACAACCT

Sequence 865

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCATATTAT
ACCTTTTTATTGTTGTTATAATTATTATGGGGTATTTCTAATTAATATGATGTTGAAACC
TGTTTGGCACCTTCTGGAAGCTACCAAAAAATGACACTCCATTGAAGTGCTTAAAAGCT
GTTCTCATAAGAATTCTACTGGCCTATTGTAAAAAAGAAAAAAAAAAGAAAAAGAAG
AAAGACACAAAGAAAATAATCTAAACACCAAAAACTAAACACAATTCCAATCCTTTTTCT
GTACCT

Sequence 866

ACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGGAAATCTGGACAGTG
CTGCACAGATTGATACATTAGCCTTTGCTTTTTCTCTTCCGGATAACCTTGTAACATAT
TGAAACCTTTTAAGGATGCCAAGAATGCATTATTCCACAAAAAACAGCAGACCAACATA
TAGAGTGTTTAAATAGCATTCTGGGCAAATCAAACCTTGTGGTTCTAGGACTCACA
TCTGTTTCAGTTTTCTCAGTTGTATATTGACCAGTGTTCTTTATTGCAAAAACATATA
CCCGATTTAGCAGTGTCAGCGTATTTTTCTTCTCATCCTGGAGCGTATTCAAGATCTTC
CCAATACAAGAAAATTAATAAAAAATTTATATATAGGCAGCAGCAAAAGAGCCATGTTCA
AAATAAGTCATTATGGGCTCAAATAGAAAGAAGACTTTTAAGTT

Sequence 867

CCGCGGTGGCGGCCGAGGTACATAACATGATATCAAGGAAATGCTTGAAACAACTTTCA
CAATAAAGTCAGAAAAAACTGTAAAAATTGTCTGCAATCCAAGAAAAAGCACGTGCCCT
GTGTGTAGGGGGAAAGAGGGAAAGCACTTGCAAGTGTGACTTTATGTGGTCTTTCCCAAG
TATTGCTACGTTTTGACCTTTGGCCCACTGAACAGGTGAAATGCCCTTCACATAAGTTT
CAATCCCCAAGAACTAGCTGGAATGCAGGGGACTGTAGACACACTCCTGGACCAAATGG
CATCGACTCTCAGAATCCAAATGGGCCCTGCCCTCATTCTGAGCTTACGGCCCCAAGCA
TATTCTAAACAAAGCTTTTTTAA

Sequence 868

CTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACAGGATATCAC
CTGAATTATTAATGAATGCCCAGGAAGTAATTTCTTCTCATTCTTCTAAACTACTGCC
TTTCAAAGNGCACACACACCCGCTNCACATACACTGCATTCTGTTGCTCCAGTATAAATTA
CATGCATGAGCACCTTTCTGGCTTTAAGCCAATATAATGGGCTGCAAAATGAAGACACC
ANAGTGTATGCATACAAATCTCACTGTATTAAGATGCAGGTTTTCTAATTGTACCT

Sequence 869

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGGCGACGCGCGGGACAAAG
GGAAGCGAAGCCGGAGCTGCGGGCGCTTTTTCTGCCCGCGGTGTCTCAGATTATTCTTA
AGGAAGTGAGAACTTAATCTTCCAAAATGTCAAAAAGACCATCTTATGCCCCACCTNCCA
CCCCAGCTCCTGCANCACAAATGCCCAGCACACCANGGTTTGTGGGATACAATCCATACA
GTCAATNTNGCCTACAACAACTACAGGCTGGGAGGGAACCCGGGCACCAACAGCCGGGTCA
CGGCATCCTCTGGTATCAGATTCCAAAACCCCCAAAGGCCACCAGATAAGCCGCTGATGC
CCTACATGAGGTACCT

Sequence 870

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGG
ACCCGGAAGTTTAAATTCCGCTCCCTCCACGAAAGAGTTGTAGTGAGTGAAAAATAATAT
TAAACACACGGAAATGTATTTTCTGGCTGCAGCACCNGCCATCTTGCCTCGGNAGGAC
TCATTTTNAAAAACAGCAGCTTCTTGAAGCCCCANAACGCATTCTGTGCTACGG

Sequence 871

CCGGGCACGGTACAGAGCCCAAGACAAAAGATAGGCCTGTGAGGATAACATCTGGTATAT
CTGACCCTTCCCAGCATGGCCAGGAGGCACAGCCAGGCCAGGGAGGGCATACTGGGTTTG

TABLE 1

139/467

GCTTTGCCCTGCAGCTGTTGGCCTAGGTGCTGCGGTACATACATATGCCCTNAGGCCTTTC
CATGGCTACCTACCTAGAACCCAGATTCTTTTTTTTTTTTGGAGACGGAGTCTCGCTCTG
TCCCCANGCTGGAGTGCAGNGGCGCCATNTNAGCTNACTTGCAAGCTNCGNCTTCCGGG
T

Sequence 872

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATTCGGGGTCATCCGCA
GAAATTCCTCATAGATGGTAACCTCTGTCTACTCTCCGAGCCAGTGGCGAGAAGTTACACA
GGGAGTCCACCCCGGTGTGGTGCCTGCTTGNGGACAGACCTGAATGTTGAACTTGACAG
TCAGAAAAATAACTCTTGATGCTGCTGTTTCGGAAGAGTTGGTTGAGCGCATCCTCAATA
TTCTTTTGTCTCTGGNAATTGGTGGTGCCTGGCTGGGCTTTGTCTGGGAATATGGT
AGGTTGGTGATGGTAGAAATTCAGGTACGAAGTGCTGGGTGCTGGAGCTGCTTGTGGTT
GATGAACTGATGACTCC

Sequence 873

ACTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCCGCCCGGGCAGGTACAATGCTCACT
GGGAACCAAAGTCAGGCATGGGGCTGGGCTTTAAGGAGCACAAACAAAAAGGAGGGACTA
GAAACTTCAGAAAGGTATTGGTGGGGGATGTTGCGGGGGGACAGGGGACAGCGAGGATG
TGGGATCCCGAGATCGTCCAATCCCTATGTGTAGACATATGTGTATAAAGGCCCTTTAAG
AGACTCAGGCTGATGGGGTATCTGTAATAAATCAAACATAATATAACAGCACGTCAAGTG
ATAAGGGGACTCTGGAAAAACAAGCAGCAAAAGGAGCAGTATCAAACCTCCACAGAAATTC
ACAAACATCAAGACACCAAGAAAGCTGCATTNATTTAAATCAAGGTGACAGGCTGGGCTC
TGTAAGCTCCAGCCTGTAATCCTAGCACTTTGGGAGGC

Sequence 874

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGTACTTTTTTTT
TTTTTTTTTTTTTTTTTGGGATGGAGTCTCGCTCTGTCAACCAGGCTGGAGTGCAATG
GCACAATCTTGGCTCACTGTAACCTACACCTCCCGGGTTAAAGAGATTCTTCTGCCTCAN
CCTNCTGAGAAGCTGGGACTACCAGGGGATCCCGCCCCACCCCGGGTAGGTTTTTTGTAT
TTTTTAGNNAGAAGACAGGGTTTTCCNCCCATATTGGGCCCAGGGCTTAGGTTCTCGGAA
CCTCTGGACCCTTGNGGATCCTGCCACCCTTGGGCTNCCAAAAATGCTGGGGATTAT
AAGGNGGGGAGCCACTGTGCCCGGGCCAACAATAAATTTTTTTAAGGGTTAGTCAAACCT
AACAACAAAANTTTAAAAGGTCAATCAGTAGTCTAACTTTTTTTTTTT

Sequence 875

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAGACTTTGTAA
ATGTGATTACAGGGCCCCCAGCACCCCTGTGTCTGCAGAGTGCCTTCAAACCTCAGCTGTT
CCGGCCGGTGCCAACCTGTGAACTTCCACCATATCCAGAACTGCTATTCCCCAAACC
ACTTCCAGTTTCCTTTCAGTAATCTTCTGAAGGAGCCAGGACAATAGGGCCTGTTGTT
TAGTGAATTTCTTATTATTTTCAGCCTTTAAATGTAATTTCCATCTCTTGCAATGAAT
TTGTTTCCCTTTTTTTGCTTCATTTGTTTAAATTTTCAGGTATTTAGCTCCCCTTTCA
TATTATTTTAAATTTTAAATTACCTGTTGTAGGGGTGTTCTCCAGAAGCAAAGAGCA
AAATTTTACTGTTGTGATGTACCT

Sequence 876

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGACGCGGGATTGA
TCAAAGCTTTGTAACCACAGGAAAAAATAAACTCTTCCATCCCTTAAAGAATAGAATAG
TTTGTCCCTCTCATGGGAATTGGGCTGTATGTATATTGTTCTTCTCCTTAGAATTTAGA
GATACAAGAGTTCTACTTAGAACTTTTCATGGACACAATTTCCACAACCTTTCAGATGCT
GATGTAGAGCTATTGGGAAAGAACTTCCAAACTCAGGAAGTTTGCAGAGAGCAGACAGCT
AGAGATAACTCGGGA

Sequence 877

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGTACAAGTCTTA
AACTGCTCTGCTCTTTAAACCAAATACATACACACATACAGATATAGTTAGATACAGA
TGTGTGTGCATATAAAAAATGACACTCCTTAGTAAATATTCCTCTAGACCTGGGGTTC
ACACATCCCTCCTCCTGATCCGTGCTGGTGCCTACTCAGGCACTACTTGCAGATTTCTC

TABLE 1

140/467

TTCTATGAGCTAAGGTTTTCTGAGCTAAGGTCAAGCGGTGACTTAGCAAGTTGAACGTG
TAATGAACCAAACCTGTTTTCCATGGAACCAATAATAATTAATCTAGAGTGAGCCATTT
GGCCTCCAGAAACAAAGAGATTTCCATCACAGAGTGTTGGTGAGGGGTCATGAGTAAGGC
GGGGGGGCAGTGAGAGCAAGCTGTTTTATTGTGAGAGTAGCAGGCAGGCTGAATGAGAAG
GGGTAGCTGTT

Sequence 878

CTACTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCGCCGGGCAGGGTACCATTCC
GGGTCATCCGCAGAAATTCCTCATAGATGGCAACTCTGTCTACTCTCCGAGCCAGTGGCG
AGAAGTTACACAGGGAGTCCACCCCGGTGTGGGTGCCTGTTGGGGACAGACCTGAATGTT
GAAACTTGACAGTCAGAAAAATAACTCTTGATGCTGCTGTTTCGGAAGAGTTGGTTGAGC
GCATCCTCAATATTCCTTTGTTCTCTGGTAATTGGTGGTGCCTGGCTGGGCTTTGTCC
TGGGAATATGGTAGGTTGGTGATGGTGAAATTCAGGTAGGAAGTGCCTGGGTGCCCCGCG
TACCTCGGCCGCTCTAGAACTAGTG

Sequence 879

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTTGGGGAATAACAGGGGAGAGCAAATTTCTAAAACTTGGGGTTTTATAGTAATTT
CTGATTTTCATGTTTAGAAAAAGAAATCACATTAATAATATGCTTTTTTAAATTTTGAG
ATAGGATACACTATAATATTATTGTAGTCCAGAAATCTGTATACTATAATTCTAGGGA
AAAAGAGAAAATTATTAGTGTCAAATACCTATAATCCCACAGTTACCATATACATTTT
TAAAAATTGTTTAAATACACAAACAATGATGATGCTGTCCTACTAGAAATGACAGGAGCN
AGAGCTTTTACCTTTCTTTCAAATGCCTTAACCCCTTTCATTATTNCCAAGGTTCAAA
ATTTAAANATTCTTTTTTTT

Sequence 880

CNCTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATGGCGCAATCT
CAGCTCACTGCAACCTCCACCTCCTGGGTTCAAGCAATTCTCCTGCCTCAGCCTCCTGAG
TAGCTGGGATTGCAGGCATGTGCCACCATGCTCGGCTAATTTTTGTATTTTAGTAGAA
ACGGGGTTTTCGCCATGTTGGCCAGCTGGTCTCCAACCTCAACCTCAGGTGATCCACCCG
CCTCGGCCTCCCAAATGCATCTCTGGTCTTTAAATGCCCTTTGCTGTATATTCTATAAC
ATCAAGTCTCAGATCTGGTTTGACCTCAGTTGGCCTCTTAATAGTTTTCCCCTATGAACA
TTCTGGTCTCCAGTAAGCCTGTAAGCAGCTGAGACTGGGAAACCATCTCTTATATCCCA
CATCGTCCCATG

Sequence 881

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCACACTGGTAAAGAGTGGCAAGGTAGC
CTTTGTAACCAGATATATCTGATCTCAAAATCAATTTTCTTAATTTAACCCACGTCAGTC
AGTCAAATGCTAAGGCTCTTCAAGCTACACTTGGTTCTCCACCCTCTAAAAGGTGAGAA
CTCAAGAGAGCTGGGTTCTTTGGGACCTTATCATATTTTCCCCTCCCTAGGCCTTGATT
TCCCATTGGAATAAATCAGTGAGGGCTTTCTAGTTAAAAATGCCAGTTGAAGCCAGG
CTTGGTGGCATATACATGTAGTTCCAGTTACTCAGGAGGCTGAAGTGGGGAGGATCGCTT
GAGCCCAGGAGTCCAGTCCAGGCAACATTGCAAGATCTCATCTCTAAAACTAAAAAATG
GACCAG

Sequence 882

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACTAATGAATTGAC
AAATGGAAGAAAATTTAAGGAGAGTAGCCTAGAGAACTCATTCTAGAACTAAATACTT
AAGTCAAAAATTTATTTCTATATTGCCTCAAGCCCTGCAGATAGCTTTGCTATGTTGTG
TATTTGCACATTGCACTCCAGCCTGGGCGACAGAGACTCTGTCTCAAAAAATAAATGGA
ACAATCACACAGAAACATTCCCTTATTCATCTGAACATTTCAAACCTGAAAATGTGTAA
TGAGAAATGACAAATTTTAAAGTTTAACTAAAGAAGACAAAAATGTCTATTATG
AATAGACCAATTCTCAATTGGTAGAGGAACCTTGAAGTGGAAAGGAACCCTAAAGAAATC
TCCTGTCTACCCCTGTTATTACAGATTAGAACCCGAAAGTCCAG

Sequence 883

CCGCGGTGGCGGCCGCGCCGGGCAGGTACTATAATTATAATGATTTAGATAGAACATGCA

TABLE 1

141/467

ATTAGCCTTTTGAAATCCAACCTTCTGTGCAAAATTTTAGTATCAGAAAATACGAGATTG
CAGGGGGAAACATCAGTAACTACCATTAAATGTCAATGCCAGTTTTGACTTTTGTTAGC
CTGACACTCCCAAACAGTTGTAGAATCCGATAGATGACTGATGGCAAAAGATTGTGAACA
TGTGGAAGAAAATCAGTGGGATTCGGTGCTGATGAATAGGTTGCCTTCAGAGTATTATTG
ACAGACAGCTTGTGGAACTAATTCTTTATTTTGTGTTGTGGGAATTAACACATCAATG
GTGGTTATGGGAACCTACCAATGGGTTCTACAAT

Sequence 884

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAATTCTAAATTATAAG
AAAATATACATTTGCACTTATTAATATAGAAATTCATTTTGTGTATATTTAACATAGCTT
TTAACTATTTTACATTAGCTACTTTCATTATGGTTTCTTGAACCTCTGAAAAAATTAG
AAATGTATTAACTTATCAGTAACATAAAAACTTATTTTGTTCACCTAACGAATACTGC
GTTTGTAAAAATAAATTAATATAGAATATATTTTAAATTAAATATTTGAATATAAAAT
AGCTCTAAGAAAGAAGCAAATTATCACTGAACATATTTCTTATTATTTCTGGCTTTGAAT
TAATACGTAACCTAAATTGGCTTAAATGATCCAGAATATTGGAGGAATATGATACTTTCA
CATAATATACTATGAACCTGTTTCATATAACTCTGGATTGGCTACCTAACCTTCTGNTTA
ATG

Sequence 885

CTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAAGTCACACCCAG
CCAGTCAATAACTGAGAAATCAAAATAAAATAAATTTCAAAGAATTACATAAATACAG
GGCCTTTTGAGATTTTGGCAATTGTAAACAAAAACGAATGGTTTTTACAATTCAGTGTA
ATTCTACGAATATTTATTTGGCACCCATGTTAGGCACTGAGGCTACACAGCAGTGAAATA
GGCCTAGTTGTTCTCAACTAGAGAACATAGTTGGTTAATGTAGCTGCACTGAATTGTAAG
CTGTTTAGAAGATAATATACCCTGAGGCTTTTAAAGTATACTATTACTATAAGGAAGTA
AAATTATTTTATACTTATAAATTTTGTGTTGGATTATTCAACTGAATTTGGAGTGTTTCA
AATTTTATGGGCGGTTGGGGACAAGGAAGAGGTATAATGCTATTTTTTTTCTTTTCTTT
TTT

Sequence 886

CTACTATAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTTAAATTTCCACCGGTGCCGAGGCCTCAGTGGAGCCTGGCTGGCGGCT
TGTTAGAGCCTGCAGCCTACCTGTCCTGCATAGGAATGAAGCCGGGAGGAGTTACATGAT
ATGCCCTCGTTGCAGGCCGGGGACACAGCTACCGCATTGAGAGACCAGGAAACAGAGCAA
AAGCTGTTCTCANAGTGCGGCTGAGCGAGGAGCTACAGGGGAATGGNGGGGGCCAAGCTG
CATGGAAGATTGTCCCATTAACCTGGCTTTTTACCAGGGTGGTCCTNTCCCTAACCCCTA
AGAATCACACCCTGCATCAAACGGCAGCAACCCCAAAA

Sequence 887

CNCTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTT
TTTTTTTTTTTTTAAAGCTGGGATATCTTACAGAGGAAGGAAAAATTAACCTTTTTTACTTT
CTTTCTCACTTTTTAAATCAGCCAAAGTCAAAGCCCGTTTGCCAACCTGCATGTCCATGC
CTGTAAGCCCTTCTNTTGGCCAAGGAAGAAAGGAAGAAAGAAAAAGAAACCCAGGGGCC
TGTATCCCCTGATTAAACACAGCACAGCACTCCAGGCAGACATGCCCGGNGGCGGCTCCT
TTGCACCATTTGACCTCAGGCCAGACACCTCAGCGCCAACATGGGACCTCGGCCTTCCGG
CTAGGTTTGCCCCAGGCTGGGCAGGAAACCAGCTCGGCCGCTNTAGAACTAGGTG

Sequence 888

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGAGAGACATTGTGGCTAGCCAACCACA
TGGTCAGCCTCAAAGTTGAGAGGCTCAGTAACCCTCCTATCCCTAGAGAATTCCAAAGTG
TGGATGTAATTTAACCTAGGAAAGCCATTGGTGACTATCTGTGATCCTCTGGAAAGTATG
CTATGTTGGGGTATATCTTTGCATCCAAAGCCAGAGGGGAACCAATGGCCTAGTAAAA
CCGGTGGGTCTCAAATGCCCACTTAAGCCTCTGGCCTNTTGAANTTTGACCCATAGTG
GGCCGTTGAGCTTGATTAGAGCCGGGGAAGAAAGAAATATTGNCATTTTTTTTNTTGA
AAAAAAATTT

Sequence 889

TABLE 1

142/467

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGATCTATGCTGC
TATGGGTGGAGAATCGACATCCTTTGAACTGGCCACAGGCAGAGCTAAGAGGATGACTA
AAAGGTCCCTTGGGTGGGTGCTAATGAGCAGGGGCCAGGAAAACCTCTGTCTTCCCGGA
GAGCCCTCTTGCATGAGTTTCGGCTTGGCCAAGATTCCAGGGACTTGAGGACAGCTATTG
AGTTATGGTTACGTGACTGCCACATTGGGGCTTGGAGGCATCTGGCAGATGGTTGGGAAT
GGGCTGGCACCACACTAATTAGGCCACGATGATCCAGTTTGACTCAGGGAACCCAGAAG
TCATAGTNCTCTTTCGAGAATGACACAAGGATGTCAACATGCTTGNNTGTGTACCTCGG
CCCGCTCTAGAACTAAGTGGGATCC

Sequence 890

CCGCGGTGGCGGCCGAGGTGCATATATATATACACACATATATATTTATGTATC
TTTTAAACATATAATTACTCTCTTTAATTCATTGGACTTTTCATCTAACTTGCTCTGT
TTGCACAGGTCTGTTAGGGTAAGATATGTTCTACCTTGAGAAATGTTGTGAATATCTAG
CGAAACACCAACATCCTCAGCTGACTAATGTGGTATCAGACTTTCTGGTTGCAAGGTAG
GGGTGAATAAGGCAGGATGGGGTGCGGGGGTGGTGCTGGAAGAAGACATGGCATCAGGTT
GGGTTTTGCAGGATACTGAAATTGTCTAGGGGCCTTGGCTGTGCAAAGAGCCTTCCGTC

Sequence 891

ACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACGCGGGATTTCT
CAGATAGTTATGCGCAGCTCCAGGCACCAGATTCTGTGCTGGGTGCAGGCAGGACCTGGA
GGGCGTCTCAAGTGTTGATCTGCAGGGACTGTCTTGATCTTCCAGCAGTGTCATTGTG
GGCACGTGACCTGAGCTTTCTGAGCCTATTTCCGCATCTGTAAAGTGCTATCCACTTCCA
CCTCCTGGGCTGTGTCGATGTAGGAAGGAATTGCACTCACACACTCAGCATGAGACA
GGCGCTCAGTAAAAGCCCGTCCAGGGGATATGAGATCAGTGAGGGATAGGAAAGCAAGG
TGGGTAGAAACAGCAAAACCTTTCCCA

Sequence 892

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGGGNCAGGTACCAAGCATTG
GACACACAAAAATACAGGCAGCTTCTTCCCTCAAGGAGGTCACAGGTGGGTGTGTCCATA
GCAAAGCTGGGAGGAAGTTGTATGAAGGAGCCTGAAGACAATGGGGAGCTAGGGGAAAGT
TCTGAGTAGAAAGGAACATGTGGACAAAGGTTTGAATGATGAAGACTGATTAGGAAGTT
CATATTATGAAGCATAATTCAAGCTTTCTCTACGATGTTCAAATCCCATCTCTCCTACTT
ACTAGANAGGTGACATTGGGCCAAGTTACTTATCTCCTCTGCTCCTGTTTATTTGTGTTT
AAAAACAGGGACCTCTCTCACAGTGTGATTNTGAAGACTGGACAAGAAAATGGGAGGTTT
TG

Sequence 893

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACAGTTTGGAAGTTT
AGGCAAAAGTCATTTCTTCCCTATATTTGTCATGCTTATCTCCTGTCTCTTTCTGTTTT
ACAGATTAGCAATAAACTCCTTAAACCCAAAAGGTTTGGGCTTCTGTTCCCTTCACTTG
CAGTCAGACATGGAGTTAGTGGTAGAAGAAACAGAAGGGGTAACTGCATGGTGACAGCT
ACTGAGGGGATGGATAGGAAAGCAGGCTGAGTCCCTGGGGCCAGTGTTACCAAAGCCAA
GGAGAGGGCAAGGGGAGCCCAGTGGGCCTGG

Sequence 894

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACATCACCCTGCTGA
GGGACATCCAGGACAAGGTCACCACACTCTACAAAGGCAGTCACTACACGACACATTCC
GCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGT
TCTCCTCCAATTTGGACCCCAGCCTGGTGGAGCAAGTCTTCTAGATAAGACCCTGAATG
CCTCATCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGG
AGTCATTCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTNTACCTGAATTTCA
CCATCACCAACCTACCATATTCCCAGGACAAAGCCCAGCCAGGGCACCACCAATTACCAG
AGGAACAAAAGGAATATTGAGGGATGCGCTCAACCAACTNTT

Sequence 895

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGGAGTAGTCTAAAACAA

TABLE 1

143/467

GTGACTTTACTACTTATTCTTCTGCATGTCCTTACCAGCTTCTTACCTTCTTCAGGTTGA
GCATGAGATCAGCTTCACAGGGGATGGGGTCTTAAGGGTTTTTTTCCATACTAGTTTCA
GCCTTAACAATGAGTTTTCAACCCTTAACATGAAAAATAAATAGTGCAGAAAGAGGGGAG
GATGGTAGAAATGCTTTAAATTACCTTTTGTAATTTTACTTTGTTTATGTTTTAATTG
TGCCTTGCTTATCAGGGAAGTCCTACAAACAAAGAACTCCACGGCTTCTTCAAGTCTTCC
AAGGGAACAGGGTCCCCCTGGTTCCTAAAAATCAATGGGAAGTAGGTTTTTGGTAACCAT
CTACTGGTCAANGGNAACCATTCTACCTGGCGGTTTATTACACCTTTGCTAGGCTTCT
TTTTCTTTTTTCATTTTTAAAAATAATTTTT

Sequence 896

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGTTCATATCCCAGTTCTA
GAATCAGTTCATTTTTCTAAGGAGTCCTGGTTCCTTTTATTGGAAACCAAAATCTGGGCAC
CAGGTGTGCTCCCATTTCTAGTCGTTTTCTGACCACATAACTGCTAACAAAGATGCTTCAC
TCTGGCTACACTGATGTGAACTTTGAACTTTAGCAGAAGAGCTCAGCTCTAGAGAACAAT
GAGCTCCTACATTACCTTTTTCTCAAAGAATAAGTAAGTCTAAGCAGAAAAAAATAT
GCAAAGAATTTTCAGTATGAATGAAATAAGACAAACCATCAGGCTTGCTGTATTGTAAAC
CAACACAATATAGTTATAACAGATCTGTAGAAGGGATCCTTAGAATAAGAGAGGCATTTG
TCGGGGGGTTCATCAGGGAGAATACTGGATAGNATCTT

Sequence 897

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTTTTTCTTCATGGCTACATCTGAACAGCTACTGAGGGATATATATGCCAACTTTGGGA
GTTGCACAGCTTTTTGAGGCCATTTNTAANATGACTAGGGACTGTAATTTCTNTTAAT
TTGGAATAGCCACAAGTTGTTGTAGCCAAGGTTTGNNGNGNGTTTTAATACAATCTTAA
AATTTTAGTAGGCTTCTCATCTGTANATAGATTTGAAGGGGNGGGGTTGCCCTCCACAC
CTGTGGGGTGTNTTCGTAAGGNGGGACAGAGACTTAGGA

Sequence 898

CCGCGGNGGCGGCCNAGGTACACCAATGGATTACAAGCAGCATCCAGCAGAAGACAGAC
CCCCAACCCCTGCCACCAGGGCTCACACTCTACAAAACCCTGAGGGCCTAGAAATCTGT
AAATGCATCGNCAAGCACTGGGGCTGATTTGCAGTAATTCTCTAAGCAAGGCAACATGA
TCTAGCTTTGAAGGCAGCATGAAGGCAGCGGTTGGNGAGAACAATCTNTCCTTAAGAGA
AGAAGAAACCTGGGGCGGANGGAGTTTTCCCCGG

Sequence 899

AGCTCCCCGCGGTGGCGGCCGAGGTACATGTTANGGTCTTGAGTTAATTGCTCTGTGGCT
GTGGATTTTTATTTGATGTTCTGATCTCTTCCCTCCAGTTTGATAAATTAGTGTAGAAAG
TGGAAGAAAAACATGCCGGCGCAGCCTGTGCGCTTGTGAGGTTAACAGAATGGAGTCTT
GCTCTGGCATCAGTCAGTGCTGTTGTCCGAACCCTCTGTGGCTCCTTCTCCCTCCCTGG
GGCCCAGAGCTGCAGACGCTAGAGGGGTA

Sequence 900

GCTNCACCGCGGTGGCGGCCGCCGGGCAGGTACCCTAAATGTTAAACTGAGGGATGAGT
GAAACAATATCAGGATTAATAAATAAACACATTCTTGAATTCATCACTTAATAGAAGTG
GCCATTTGAATGCTGGCAGGTNGGAAGAAAAGAGGAGGACAAAGAACCCCAAAAGTTTGG
CATCATAACTACTGCCACAAG

Sequence 901

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TGTATTTTTAGTAGAGATGGGGTTTACCCTGTTAGCCAGGATGGTCTCGATCTCCTGAC
CTTGTGATCTGCCTCGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCG
CCTGGCCTTTCCAGGGTATTCTTTTAACTGGTCTTATTTGCCTTTTTGAATTTAAGAAA
ATCTATCAGCATCATATACCACCACTGGAATATAAATTTGAAAGAGAGTCTGCAGATTA
TATACATGAATCTACTTAGGCCTAATAACCAAGCAGTCCTCAGTGGCAGATCAATGAAAA
GTGAAACTAAAGGCAAGTGAAGGGTAGGAGAGATTGGCCAGT

Sequence 902

GGCAGGTACCCACCTCCTCGGTCACCCACAGAGCCACCAAGATTCCATGTCCCAGAGCT

TABLE 1

144/467

TCCCATAGCAGACCTGAAAAGTCCATGACCTGAGCTTTGGCCATGGTAGTGGAGTGGAAC
AGGAAATAGTCCAGCAGAGGAGTGTGGGGGAAGGGGCGAGGAGAGGCACAAGAATAAGGG
AGACCTGGACTCTGCCTTTTTGGGAAAAGGAACCAAGCTCATAGCAATTTGGCTGATNAC
ACAATCAGATTTTTCCAGGTTAAGCTTCCTTTCTG

Sequence 903

CCGCGGTGGCGGCCGAGGTACCATCTACTGAATGCCAGTTTTGATCTATTTCTAAATGG
AGCAAACCAATTCATCTCCTAGAGCTGGAGACTGTATCCAGGCAGTGTGTGGACAGAAC
GGACAATCTTTCTGCCAAGGGCCTATTTGAGTGGAGCACCCCCACACGGGTTAGACGGG
TCGGCACGGGGCTGGTGGGTGAGGAACCTCAGGGGTCAAGTCAAGCTGCAGACCCTCATTT
GGGGAACGCTCTCAGCACAATGCTCTTACAACCTACAGGGTGCACCTCCAAAATGGAGTTCA
AGGAAAAAAGGCTAATGAGAAAATAAATCTGAAAAATAACTTAAAAAGTTTTGCT

Sequence 904

CCGGGCAGGTACGCGGGGGGCCCTTTGGATACCTGCACTCCCCATCACCGCACTCCCCATC
GTGGCACTTCCCTTGTTCAGTTTTATGGAGTGTGCGTCTGGCTCCCCAACTAGACTTGA
ACCGCTTGGGTGCATAACTCGGGACTTGACCATTTGCGTCTCCCTACGGCCAGCTCAGCC
TCCGCACACAGGGACCTGCAGAGAGTGGATGTAGCCACTGCCCCAGCGTCCCTGGGCTCT
GAAGAGAAGCCATTGCCCTTCAAGAGCCACCCTCATTTCTGGGCACTGGTTTGGAAAAA
ACGAAGAAAAAGAGACACCCAGCTCACCTCCA

Sequence 905

CTCCACCGCGGTGGCGGCCGCCCGGGCAGGTACGCNNGGGCAACTCATTTCATGATATTGGG
AGAAAAGCAAAGCAAAAACTGCAACAAAATCTCAAACCTTTCTGCAGCAGCAGATGGCA
AACAGTGATCAGAGGAGAAGGACCCCTCCAGCATTAGAAGATTTCCAAAGGCTGTTCCAG
TAGGGGCTGTGGGCTTCTGGGAGCCCAGATGCCCCCTGATGGTATATTTGAGTTTGTGAG
GTGGAGGCCAGGTGGCAAGANACTGCNNGCCAATGTCAATGAAAAGCCTGGGAGGAAAAA
GAGATTTCTGGGA

Sequence 906

AGGTACTTTGCTAACCAGCATTTTGGCTGTGTTATTGGCAGTTTTCAAATTTGAATTCTC
TTGCCATCTTTTGAGAGTGCATAGACATTTAATTTTAAGAAATTTATAGAATTGGACTT
TTTTGTCTCTATACATTTGTAGGTCAGATGCACATTTGTTTCCTGTTTCATCTTTCTTTA
AGAGCAAAAATGTAAAGTTTTGTATGTAGAGGATAATTGTATGATGATGATAAACTAATT
AGGTATTACAGTTTTCTAACGACAGAAATTTGTAATAATTAGGTAACCTGGTTTCATATTA
AAATATTTGATACATAGGCCGGGCATGGTGACTCATGCCTGTAATCCCAGCACTTTGAGA
GGC

Sequence 907

GGCAGGTACCACACCCATCTTACCCTCTTCCCTCTAGGTTCTGACATTCAGCTATCTTGG
TGGGAGGCTGGGGAGCACTATTGGGGATGAGGGTAAGGTGGAGTTTTATAAAGCTCTCCA
GGTGACTCAGAGACCACCTCATTCCACCTGGTCACAAATCCCTGAATGGGAAACAGGTA
CTTTTTTTTTTTTTTTTTTTTTGCAAAGAATTGTAAAATTTATTGTATAAGTATTGCA
GCTTTTCANAATGTCATCATTGCCACTAATGATTACTGATACACAACAAGCAGTTTCTTC
AGGCCTGTGGATTGGCATC

Sequence 908

AGGTACTTCCCTGAGCAGTCGAAGTGGATGCCAGACCAATGGCCAGTGCTAATATCAAT
GCAATGATCCCAATGACGATGATTGGA:AAAACCTTCAATGGCAGCAGTGACAGGATCTGT
GCAGCAACAGCATCTGCATCTGGTGCAACAGGACTTATTTCAAATCATCAAGGCCAAAA
AGCGATCGGAATGAGAAGGGGGCTTCAACAGCAGGCGGATCATTTTCCCCATGGTGACT
ATTTCAGGACCTCTGACATCCGGCTCCGCCTCCACCTCTACCTCATAATTCCCGAGTCCC
AAAAATGTAGATGGCACCACGGAAGAGATAGTAGGCCACAGTGTTACTGGCTTCCCATTA

Sequence 909

AGGTACAGCAAATTAACCCAATAACAGGAGGAGGAAAAACACCTAATTAATATAAAAATT
TCAAGGATATGTTAAACAAACAAACAATTACAAGAACTCCTGTCAAGTTAAACAGAGAG
AGAGAGAGACAGGGAGAACCCTAACAGGAAAGAGAAAAAGATATACAAGCTATCCCGCA

TABLE 1

145/467

GAAATTA AAAAGAGACTAAGAATATTACAAACAAC TTTATTTTCATTTAGATGAAATGGAC
AAATTTATTTTAAAAACACAATTCGCCAAAATTGACAGAAGTGGAAGTAGAAAATCTATTT
CTGTATTTATTAAGATACTGAATCTATAATTA AAAAATATCTTCACACAGAAAATTACAG
TTTCAAATG

Sequence 910

AGGTACGATCTGAAGAAATGAAAGGCATTGAACTTTGGTGGGTAAATTGGGTCTTTTCCA
GCAAAGGTATAAATCCTTAAAAGCCAAGATCATATTGTTTGATTTCTCTGGGCTCTCTGC
TGGATACAGTGCCAAGTCCATAACTGTATACCCCATGGACACTCTATGTTAAATGGAGAT
TAATGTGTAAGAGGTGTTTTTTTTTTGTTTTGTTTTGTTTTTAATTTGGAAGAAGC
TTAAAGACCACAATGGGTGTGGCATTGGCTCGACCCACAGATCTGCTTAGTCTCAGACAG
GCACTTTGAACCAGTCTTTTAAAATTGCGTCACAACAAC

Sequence 911

AGGTACAGATCACTATGGCTTGTCTTTTCTCCTAACTAATGTAAAATTCCCAATAATTCA
TAAC TTGTATGAGGACAACAGTTGTGTGAATCTACCTGGTCTTCTGATNATTTTTAAT
TTTTNATTTTTTTTTTTTTGGGGACAGAGTCGTGCTGTTATCGCCCGGGCTGGAGTGCA
GTGGCATGATCTCGGCTCACTGCAACCTCCACCTCCAGGTTCCAGCAACTCTCCTGCCT
CAGCTTCCCGAGTAGCTGGAATTACTGGTGCCCACTACCACACCCGGCTAATTTTTGTA
TTTTTAGTAGAGATGGGGTTTCACCATGTTGGCCAGGCTGGTCTTGGA CT

Sequence 912

AGGTACAAATTGTCGTTTTTATTCCTCTTATTGGGATATCATTTTAAAAACTTTATTGGG
TTTTATTGTTGTTGTTTGATCCCTAACCTACAAAGAGCCTTCCTATTCCCCTCGCTGT
TGGAGCAAACCATTATACCTTACTTCCAGCAAGCAAAGTGCTTTGACTTCTTGCTTCAGT
CATCAGCCAGCAAGAGGGAACAAAAC TGTCTTTTGCA TTTTGCCGCTGAGATATGGCAT
TGCACTGCTTATA

Sequence 913

TGGCCAGNTCAAATNACAACCCCCCAACCCCCCCCCCCCCCCCCCAAAACAGACAAGGA
CACAGNTCACCANACAATGGATGTNCAGGNANTNGATATCAGCAGATATNTTAGNCCTNT
AGATAGGCTAATTTNANTNAGCAAAGGAAAGAGGAGGTANCATTAGNCAGATGGGNTATT
NACCTCTGAATTAGATGGCACTTACCCANCTTCTGGNACAGNCCTGCTGGNGGCGTCTAG
ACTAGTGATCCCGGCTGANGATCGATTAACTATCATCCGCGACCTCAGGGGGGGCCGGAC
CCACTTTTGTCTTA

Sequence 914

CGAGGTACGCGGGACACTGGTGGGGGAGAGTCCGACGCGCCTGGCTAGGAGCGCCGACCG
CAGGGCCTCTACGGACCTTACTAGAAAAATGAAACCTGATGAACTCCTATGTTTGACCC
AAGTCTACTCAAAGAAGTGGA CTGGAGTCAGAATACAGCTACATTTTCTCCAGCCATTT
CCCAACACATCCTGGAGAAGGCTTGGTTTTGAGGCTTCATGCGAGAAAGGGGAATGGGGA
ATGGCTGCTTAACGGCATGTCTTTTTTTTTTTGAGACGGAGTCTTGCTCTGT

Sequence 915

CGCCCCGGGCAGGTACGCGGGGACTTGACTTAACTCTGGGGCCCCGGGAGGCCGCCGTTT
TCTCCCCGCTTGCCGGGGTGGTCCTCTTCCCTTTGTCGGACCAAAGAAGTAAACACTGTG
TGGAGAGGGACTGCGTGTTTGGAGGGAAATGGGAATGTACCT

Sequence 916

CCCCGCGTCCGCTCTCTGTCTGGGGTCCCTCCATCTCGCTGCTGCTGAAGGCCGCGAGGG
CGGCGGCGATGGCGGAGGCGGCGCTGTTGCTGCTGCCTGAGGCGGCGGCGGAGCGGGACG
CTAGGGAAAAGCTGGCTCTCTGGGATCGGAGACCGGACACGACGGCGCGCTGACCGACA
GGCAGACGGACTCGGTATTGGAGCTGAAGGCGGCGGCGGAGAGAACTTGCCGGTGCCAGCTG
AGCTTCCAATTGAAGACTTGTGCAGTTTAACATCCAGTCACTGCCATTGACTGACTT
CAGTAGTGCCTGAATCTACAGAAGACATTCTCTTGAAGGGCTTCACTTCTTAGGAATGG
AAGAAGAAAGAAATTGAAACCGCACAGCAGTTTTTTCTCATGGTTTGCAAAGCTGCAAAC
CAGATGGATCAAGATGAAGGAATAAATATAGGAGCAGTGTGATGCTATATTGAATGATG
TAAACAGTGCTCTTCAGCATCTGGAGTC

TABLE 1
146/467

Sequence 917

GGCTGTGGCCAAGAAACGCAGGGACCGCTCTCTCCCCGGGCTTTCGAAATCTTCACAGA
CAATAAACCTATGTCTTTAAGGCCAAGGATGAGAAGAATGCAGAAGAATGGCTCCAGTG
CATCAACGTGGCAGTTGCCCAAGCCAAAGAAAGGAAAGTAGAGAAGTAACCACATATCT
GTAGGGAATTTATAAGTCAGCCATGACAATTATACACCACAGGCATTGTATTATCATTGC
CAATGTCAAGAAAAAGAGCTAAATTTACCAAGCCATGGTTGGNTTTTACTAAATACCAT
GGGAATTTGTTGGTCCTTTAAGAAGAAGGGCCTTAAATGGCAGGGATTTCTTAGTNAAA
TGNCAATACTCTAACAGCTTTAGTATTGACTTTAGAATATATCTGATGCCACAAAAATT
AAATAAAGGNTTNGAGGAGGTTTGCNNAATAAGTGNGGGGGCCCGAGGGGAA

Sequence 918

AGTCNCCACGCGTCCGCGGACGCGTGGGCGAGTGCCAGTGACCCTTTACGGGGGTAGCT
TTTACTCCGCACTCTCAGCCCCTGCCTCACCCTCCCTCAAGGCCCGGATTGACCATTTCT
CTGCTCCAGCACTCCATCCCTGGCTGCCACCTGCTTGGGAGAGCACAGACGGCATTGGCA
GTGATCCCTTCTTCCATTGTTCTGCCCTCTCAGAAAAAGGAAGATAGAGCAGGCTGAACAT
GTCCAGACAGTAACCTTTGGTGTAATGCTTCCCTGTTTTCTGCCACAAGCCCTTTGGTC
TTACCCACTACCTCAGAGCACACTGCTAAGAAAATGAAAGCCACCAATGAGCCACGCTG
ACACATATGGGACTGCTCGACAGGTCCACTGTCCACGAGCAGAAGCTGGTCACAAAGCT
TGGGAAAT

Sequence 919

GGGAGTCGACCACGCGTCCGCGGACGCGTGGGCGAGTGCCAGTGACCCTTTCACGGGGG
TAGCTTTTACTCCGCACTCTCAGCCCCTGCCTCACCCTCCCTCAAGGCCCGGATTGACC
ATTTCTGCTCCAGCACTCCATCCCTGGCTGCCACCTGCTTGGGAGAGCACAGACGGCAT
TGGCAGTGATCCCTTCTTCCATTGTTCTGCCCTCTCAGAAAAGGAAGATAGAGCAGGCTG
AACATGTCCAGACAGTAACCTTTGGTGTAATGCTTCCCTGTTTTCTGCCACAAGCCCTT
TGGTCTTACCCACTACCTCAGAGCACACTGCTAAGAAAATGAAAGCCACCAATGAGCCCA
GCCTGACACATATGGACTGCTCGACAGGTNCACTGTCCACGAGCAGAAGCTTGTCAAA
AGCTTGGAA

Sequence 920

AGTCGCCCCGCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCG
TGGGGGATGGATGACAGTCCACCAGAAAAAAGTTAGTGGAGCGGGGACAAGCAGGGTTGC
AGAGTGGAAGAAAAATGTTCTGTGAGAAGAACTGTCCAAAGAGTNTGAAGAGAAAAGG
GAACAGGGTGAATTTGANGCCCTACAAGAAAAACAGGAGACCATTCAACAGGAGACGCCC
AGGGAGCAGGTGGCTTTGTGGGCCTGATGTCCAAGAAAGAAGTNCTGGTGGTAAACAGAG
ACTTGTGGATTGCAAGCTACTGTTGTCTTTCTATTGAA

Sequence 921

TGGGAGTCGCCACGCGTCCGGCCAGGCGTGCTGGAAATCCGCTTTCGCAGCGCCCCCTC
GTAGCCCGCCTCCGCCCCGAGAAGGCGTTCCTGGACAGAGAAGCGGGCGCGGGGGCG
GGCGCGTGGGGCCTTGCCGGAGAACCTGACTCTCCGCAGCAGCAGTGGAAGCCAGAGTGA
CGCGTTGTGTTGAACACCAGTTTTCTGGAGCGCTGTGTGTTCTCAACAGCTGAGCAGTCT
GTTTCTCCAATCAGGTTTCAAAGCCACTTCAACTGCACTGGCCCCCTGTGGGTCACTGCTG
CACC GCCCTGGCCCATGTGGGTCCCTGAGGAGCGACCTGCCGGGGCCACCTGGCTGGACG
AAAAAGACACACTTTGGGACTTAAGCCGTGAGAAAAAACTTCATCAGTAAGAAACAAGT
CAATAGACAAGTAAAAGACTAGGAGAAAAATATGCATAAAACATAAAAAGTGACTTGGATT
CCTGATCTTGGAGTATTTAAAGAATTCTATAACTTANAAAAGGTTTCAAGTTTTTTNAA
ATGAGCAAAAANGTTTGGGTAA

Sequence 922

TCCGAGGCTGGGGGATCCCAAAGGGTGCGCTCCAGCCCCCAACCCAGGCACTGGGACTC
TGGTGGCACCCTGGGTGGCAGGCAAGCCTTGAAATCAAGTGACGAGCCTTGGAAAGGAG
GACCGGGAGAGTTATGGCATTTATGAATGAAGAAGAGAAAGAGAATCACTCGGATGGGAA
AAGTTAACTGGATTGTTCCACCTGCATGGATCACCCGGGTAAGTGCAGTGGGACCGAGG
GGGCGAGGCTGCGGGCTGGGGGATGTGCCGGGTTTCTTGTGTTGCCACGAACCCAGAGA

TABLE 1

147/467

GGGAGAGGAAGAAGATGGAAAGAAAAAGGAAAAAGGGAAGGAAAGTAAGAGGGGAGAGAG
GGGGAAAACTTGAGGATGAAAGAAGAGACAGAAGAAAGAAGAAGACCTTGAGAGAGGGGA
GGAGAAAGGAAAGGAAGCNGGAAGGAGGAATTGGAAAGTGAAGGAAAGGGGGGAAACCAG
GCNGAGAAAGAAAAGAGAAAGGGGGAAGGGAAAGAAGAAAGGGGAAAAGNAAGGGGGGGN
GGTTGAAAATCAACNCGAAAAAAGAGG

Sequence 923

CNCGCGTCCGGCTGTGATGAATGAGGTCTAGGAAATAATTTGCATGTGTCTTGGGGGACA
CAACAGTAACNGAGAGGAAATACATTATTACAGCAACTTGCACGTACTAATACCTGTCA
GTGTTGGCCCCCGTAAGGTATGTAAGGCACCTGNGANGTGCCAGTNAGTNCCTTGGTGN
AAGGCCAACATGTACTAGTTATGTAAGTATTGGTGTCTGCTTTAAAAAAGGAGACCCAGA
CTTCACCTGTCTCTTTAAACATTTGAGAACAGTGTTACTCTGAGCAGTTGGGCCACCTT
CACCTTATCCGACAGCTGACTGTTGGATGTGTCCATTGTCGCCAGTTTGGCTGTTGCCCG
GACAGGACAGGACCTCCATTGGGCGCAGCAGCAGGTGGCAGGGGGTGTGGCTTGAGGGTG
GGTGGCAAGCGT

Sequence 924

CCCCGCGTCCGCACAGATCCTTGAGCTCCGCTGCAGGATAGTACAGTTTTACCGCAGAGG
GAATCTGGAACAGTGAATCATGTGTCTGCCCTGTGTATTGCAGTTTGTATTGCCACAAG
CTATATTTATACAGTGTACCCCTTTTCTGTAGAAATATACTAATAAATCTGTGCCAACT
CTACCTTCTCACTTTTACCTCTGACGTCATTCTTTTTTCTGAAAGAGGTAATAATTCTA
GTTTTGATAGACTCTGAGGATTATGTGAACAGGACATTTTTTCATTTGTGAATTTAATGCT
ATACTGTCAAGGTACTTGCTTGTGTCTGAACCTCTAGTGCAGTTATGATTTTGTAGACCCA
TGTGAAATTTAATAAGATACGTTTTTTTCTTTCTTTGGTGTGGTAGTGCAGCAACAGT
TTGGTCTGCATTTGTTAGAAGTTTAACTCCTAACAA:CCCAAAGACCTATTTA

Sequence 925

GCGTCCGACCCCAAAGGGAGGGACCACATTGCACACACTGTAAGAAATGCAGTTTCCGAG
GAAGGGGATGGGGGAGCCCGACACCCAGAGCTCCCCGAGTTGGGGGTGCCCGTCTGGAG
CGCCCCCGTCAGCCCCCTGGCGGTGGGAGGTGAGAGCGAGTGGTTTAAGTGCCTGATTACC
ACCACCCGCCCCCCCCCTTTGTCCAGCTGGGACACGGAATGGCCGCGGGCCTCCTCCCCCT
CCCCTCCAGCCTCTCCACCAGCCCCCTCCAGTCAACCCTCATCGCCGTGCCCCCCCAGAGC
TAGAGAGATGGGGCCCCTGCGTGGCCCGAGGGGCAGAGCTGGGCGTCACTTCGCAAGCGT
CCTGCCCTGCCGGGGCGCGGGGGTGGGCTCTGGGGAAGCCGCTGCGCCCCCACGCCTNC
GCTGCCAGTGCCTTACATTCTGGAGCGACCCCCCTCCCTGGTGCCTCCAGCGAAGGGGG
ACCCGC

Sequence 926

AGACAGCTCAAGCCTTGCCACTTCGGGCTTCTCACTGCAGCTGGGCTTGGACTTCGGAGT
TTTGCCATTGCCAGTGGGACGTCTGAGACTTTCTCCTTCAAGTACTTGGCAGATCACTCT
CTTAGCAGGTAGGTGCCGCAGACCCTGCGGGTTAAGAGGTGGGGTGGGGGGCAGTGCTTG
CCAAGGCCCTAACTGGGAGCGCTGGGTGAGGGGAACAACCCACTTTGGAGGGTTCTCTG
AGAGATAGATACACCCCATATCCTGGGCCAGCTCGTGCACACAGCTGGAGGTCCAGAGA
CCCAGTCCCCTCTGCTCCGTCAGCCAAGTTCCAAGAAGTTGAGCAGAGACCTTCTGGGA
GCCTGGCGGGGTGCAGCGGCCTCCCCTGCGGGGCCTGTACCCGCGCGGGCGCGTGCAAA
CGCCTCTGGCGCCTNTNTGCGCGGGAGGGGAGATAAGCGTCTGAGCCAGGGAAAGCCGCC
GGGCTAAAACCCGCCTTTTCCGGGGGCCCC

Sequence 927

CGCGTCCGGTCAATACAAATGTCATTGTTTGGGACCCGTTTCTAAATACATCTGCTGCCT
ACATTCCTGCTCACACATACGCTTGACGCTTTGAGGCAGGAGAGGGTAGTTGTGCTTCCC
TAGGAAGAGTGTCTTCCAAAGTGTCTTCACTCTTTTTGCCCTGCTTGGTTTCTTCATT
GTTTCTTTGGACACAGATTCTGGAAAACAGAATTATTCTTCATAGGCTTTATCATCATGG
GATTCTTCTTTTATATACTGATTACAAGACTGACACCTATCAAAGTATGATGTGAATCTG
ATTCTGACAGCTGTCACTGGAAGCGTCNGTGAATGTTCTTGGTAGCTGTGTGGTGGCCG
ATTTGGAATCCTCTCGATCTGCATGCTCTGTGTTGGACTAGTGTGGGGTCCCTCATCTC

TABLE 1
148/467

GGTCANGTGACTTTCTTTACTCCACTGGGAAACCTAAAGAATTTTTTCATGATGATTGGG
TGTATTCTGGGTCACTTTCTCTTGCCATAAGCTATNCTCATTCCAGTAGTTT

Sequence 928

CCACGCGTCCGGACGCTGCGTGGAAGCGGCGGAGCCGGAGGGAAGCAAAGGACCGTCTGC
GCTGCTGTCCCCGCCCGCGCTCTGCGCCCTCGTCCCTGGCGGTGCTCCGAAGCTC
AGCCCTCTTGCTGCCCGGAGCTGTCCCGGGCTAGCCGAGAAGAGAGCGGCCGGCAAGT
TTGGGCGCGCGCAGGCGGCGGGCCGCGGGCACTGGGCGCCTCGCTGGGCGGGGGGAGGT
GGCTACCGCTCCCGGCTTGGCGTCCCGCGCGCACTTCGGCGATGGCTTTTTCCGCCGCGG
CGACGGCTGCGCCTCGGTCCCGCGGCCTCCCGCTTCTTCTCTCGGGACTCCTGCTACCT
NTGTGCCGCGCCTTCAACCTAAGACGTGGACAGTCCTGCCCGAGTACTCTGGCCCCGAGG
GGAAGTTA

Sequence 929

CGACGGCCANGGCGCCTCCGAGTTCCCCGCCAGGACTCGGAGGGCCAGGAGGGCGCGACC
TGGGTGGATATTTTTGTTGGACGGCGCAACTCTTGGGGTGGCCCGGAGCGGCGGAAACC
GAGCGAGAGAACCAGGAGGCGCTGCGCAGAAGGAGGCCCGGGGCTCCGAGGCGTTGAGG
GGCTCGATCTGCGTTCTGGGGTTGGCAGCCGAGAGGCCGCGGTCCCTGAGTGCCAGAGGT
GGTGGTGTGCTTATCTTCTGGAACCCCATGCAGCCAGATCCCAGGCCTAGCGGGCTGG
GGCCTGCTGCCGATTCTTCCCGCTGCAGTCACAGTGCCCTGAGGGGGCAGGGGACGCGGT
GATGTACGCCTCCACTGAGTGCAAGGCGGAGGTGACGCCCTCCAGCATGGCAACCGCAC
CTTCAGCTACACCCTGNAGGGATCATACCAAGCAGGCCTTTGG

Sequence 930

CGTCCGCTTTNAGACCGGAAGACATTTAAAAGCCAGTTTACGTACANGAAGCATGGTTTT
AGATTAACCTGCCTGTTGGTACAGCTAGAAACATTGCAGCCCTATCGCTTATTTATCTTGC
ATGTTGCTCTGCTTTGCTATGAAAAATATCGTTTTATGATAAAACTTGTGGAATTTTGAT
ATGTATTCGGTTATACTCTTAGGGAAAATAATAGAAATTAGAGTGAGAGAAAGTGCTATG
TATATTAGGCTTTCAGATTTTATAGATATAGGCTTAAGGGAGGGTGGAGGTTCTTTTTTT
AAGTTGAATGACTACTTAAATTTGTTGATGTGAATTTAAGTTTTAAAGATTATTATTAAT
TAACTCTTCTCTTTGCTTTGCATTTACCTTCCCAGATGTTCCAGCCTATCATTTTACTT
ATTCTCATTCTTGATTATTTTCATCACTTTCTTACACAACAATATTTAAACTTGNCCTC
CTTTTACACTGGTTTTTGGTAC

Sequence 931

CACGCGTCCGTGGAGTATGTGCCATCTGCCAAAGTGGAGGTGGTGGAGGAGCGCCAGGCC
ATCCCTCTAGACGAGAACGAGGGCATCTATGTGCAGGATGTCAAGACCGGAAAGGTGCGC
GCTGTGATTGGAAGCACCTACATGCTGACCCAGGACGAAGTCCTGTGGGAGAAAGAGCTG
CCTCCCGGGGTGGAGGAGCTGCTGAACAAGGGGCAGGACCCCTCTGGCAGACAGGGGTGAG
AAGGACACAGCTAAGAGCCTCCAGCCCTTGGCGCCCCGGAACAAGACCCGTGTGGTCAAG
CTACCCGCGTGCCCCAC

Sequence 932

GGTTCGCCCACGCGTCCGCCCTGCTACCCTGGGAGAAGCCTCAGCTTTCTGGGCAGAGTT
TGTCTCCCTGTCAATTTATACTCTCAGGCTTTATACATTTACACAGTAAGTTCTCCCTCCT
GGAGGGTTAAAAGGAATAATTTCAACAGGGTGAAGGCCTGGCACGGTGGCTCACAAGTGT
AATCCAAGGACTTTGGGAGGCTGAGGTGGGTGGATCACCTGAGGTGAGGAATTTGAGACC
AGCCTGGCCAACCTTGGTGAAACCCTGTCTCTACTAAAAACAAAAATTAGCCAGGTGAGGT
GGCACACACCTATAGCCCCAGCTACTGGGGGAGGCTGAGGCAGGAGAATTGCTTGAACCT
GGGAGGCAGAGGTTACAGTGAGCTGAGATGGCACCCTGCACTCCAGCCTAGGTGACAAA
GCAGCAAGACGCATTCTNAAAACAAAACANCAACAACAACAAAAAACGGGAAAACA

Sequence 933

CNCGCGTCCGGTCCACTGTCATCTCCTGGGTTTTCTCTGCTCTTTTATTTGGTGATCCTG
GTTCTTTCCGCCGTTACGTCATTGTGTGCACCTCAGCTGAAAGTTCGTGCTACTTCTGT
GGCCTCTCGTGGCTGGCGGCAGGTGGGGTGATGGTGCTGGCCTCGGCGCTGCTGTGTGTG
ATTGTGTCTGTTCTGACCAACGTGCTCGTGGGTGGAACACCCCAAGGAAGAACCCCATG

TABLE 1

149/467

CATCCCAGCTCAAGGTGGTCAGAGCTAGACCTTCTTATTCTGTTGGGGACGGCGGGCCAC
GTCTTGAGCCTGGGCGCCAGCAGCTTCGTGGAGGAGGAGCACCAGACCTGGTACTTCCTT
GTGAACACCCTGTGTCTAGCTCTGAGCCAAGAAACCTACAGAAACTACTTT

Sequence 934

TCGCCCCGCGTCCGGTTATTTTACCCAGAAGCCGGATAGAGAAAATATTACAGAGAAAAT
CACATATCACATGGGCTCGAAAGATGTAGAGGTTTTTGACAAATGAAGAACAACCATAAC
AGGTAGAGGGAACACCATGAACCAGGGCATGAACTGAAAGTGCATAACATATTCTAGAG
AGAGAAGGGTGTGGGCATGAGTTAGGGCTGGAAAAACAGGTTGGAAACAGATAAGTAAGG
GTCTCAAATGCAATGTCAAAGAGCTTGCAGTTTATTTTCCAGGCAATGAGTAGGCAGCCA
AAAAAAAAAAGTAAGGATGTTTTTTTTTTTTTCCCATGGCATCATATTTAAGAGGATGG
ATTTAAATTGTGTGAGACCAAAGCATAGAGACTAGATAAGAGGGGCGATCATTATTTCAA
AAGAAATAATGAAGATCCAATGAAGGAAGTGGGAAATTAATAGGGGAAGAGAGGTA

Sequence 935

CCGTCCGGTTTTTTGTCTCAGAGTCTTCAGGCTGTACAGGAAATGTGGTGCCGGCATCT
GCTTCTGACGGAGTCTCACTCTGTCGCTCAGGCTGGAGTGCAGTGGCATGATCTCGGCTC
ACTGCAACGTCCGCCTCCTGGGTTCAAGCCATTCTTCTGCCTCAGCCTCCCGAGTAGGTG
GGACTACAGTGGCCATGTGTCTGAGATCTAACCAAGGGAACATGGGTGGAAGTATGTAA
GCCACTTTGACACCACAAAACCTCCCATGGGTTCTCTCTCTTCTCTGTTGTACTTGT
TGGATGGAGAAGATGCTGAGAAATAGTGGGAAGTCCTAGGGGATGGAAGAACCAGGATT
CTGAATACTCCATTGGACCTTACGTTTTGGAATCAGGNATGATGCTGGCCTTCATAAAAT
GAGTTATGGAGAAAGTCCCTCTTTTTCTGGTGTTTGGAACANGTTTTCAGAAANGAATTT
GNTACCCAGCTTCNTCTTTGTACC

Sequence 936

CCGGTGAGCGCCCCGCGCTCAGCCGCCAGATCAACCTTAGCGCTGGGGCGCGGGCTGG
GGTCGCCAGGCGGTGCGTTCTGCCCGCGCGGGGCTGAGAGTTAGGGGCCGGGGCCGGATC
CGGGGCCGGGGTCCGCGCGCTAGCCGCCAGCAGCGCAGTCCGGGCCGCCACCCTGCACC
CTCCGCCCTGTTTCTGCACCCGTCTGGGTTCTTGTCGCGCGCCGCAAGCCTTCCCGAG
CTCAGGGTGGTGAGCTGCGGAGACCCGTGATAATTCGTTAACTAATTCAACAAACGGGAC
CCTTCTGTGTGCCAGAAACCGCAAGCAGTTGCTAACCAGTGGGACAANGCGGATTGGAA
GAGCGGAAGGTCTGGCCAGAGCAAGTGTGACACTTCCCTCTTTGACCATGAACTCT
NGGGTGTCTGCATTGCTGATGGC

Sequence 937

GTCCGCCGGCATGAGCTGTCCATGAAGGATGAGCTGCTTCAGTTCTACACCAGCGCTGCG
GAGGAGAGTGAGCCGAGTCCGTTTGCTCAACCCCGTTGAAGAGGAATGAGTCGTCTCC
TCAGTCCAGAATTACTTTCAATTTGGATTCTCTTCAAAAGAAGCTGAAAGACCTTGAAGAG
GAGAATGTTGTAATTCGATCCGAGGCCAGCCAGCTGAAGACAGAGACCATCACCTATGAG
GAGAAGGAGCAGCAGCTGGTCAATGACTGCGTGAAGGAGCTGAGGGATGCCAATGTCCAG
ATTGCTAGTATCTCAGAGGAACTGGCCAAGAAGACGGAAGATGCTNTCCGCCAGCAATGA
GGAGATCACACA

Sequence 938

CCCGCGTCCGGAATTCCAGTTGTGGATGAAGGAAATGGTGTTATGACTGCCTCAAGGTTT
TGTAAGCAAGTCATAGGGAACCAAAAGAGGAATCTTGTCTTCTCAGAGGTCATGCCAAT
CCAATCCCGTTCCCTAACTGTCTCTGAGCCATAGACTAGTAATGGACTCTTCAAGCTC
TACCATTAGTATCTTTTAAAGAAAGCTGGTTATTACTATTTATTCATTTTTTCTCTTC
TGTGCAAGTGCAAAAGATATGAAACATCGGCTAGGTTTCTGCTGCAAAAATCTGATTCTT
GTGAACACAATTCTTCCACAACAAGAAGGACAAAGTGGTTATTTGCCAGAGAGTGAGCC
AAGAGGAAGTCAAGAAATGGGCTGAATCACTGGAAACCTGATTAGTCATGGAATGTGGG
CTGGCAGCTTTCAAAGOTTTCTTGAAGTCTGAATATAGTGAGGAGGAATATTGACTTCTG
GATCAAGCTGTGNAAGAGTACAAGAAAATC

Sequence 939

CGTCCGGCCGGCGACGGCGGCAGTGGCGGCCCGGCTGCAGGAGCCCGACGGGGTCTCTG

TABLE 1
150/467

CCATGGGGGAGTGACGCGCCTGCACCCGCTGTTCCGCGGCAGCGGCGAGACATGAGGAGA
CCCCGCGACAGGGGCGAGCGGCGGCGGCTCGTGAGCCCCGGGATGGAGGAGAAATACGGCG
GGGACGTGCTGGCCGGCCCCGGCGGCGGCGGCGGCTTGGGCCGGTGGACGTACCCAGCG
CTCGATTAACAAAATATATTGTGTTACTATGTTTCACTAAATTTTTGAAGGCTGTGGGAC
TTTTCGAATCATATGATCTCCTAAAAGCTGTTACATTGTTGAGTTTCATTTTTATATTA
AAACTTGGGACTGCATTTTTATGGTTTTGTTTCAAAAGCCATTTCTTCTGGGAAAAC
ATTACCAACACCAGATAATTGGATCACTAAAAATTCCTGGTAGAAAAGAATTTAAAGAC
AAA

Sequence 940

TCCGAAAGNGTACTGCCATGANCCGAGATAGGAGACACATAAGAGGACAGCAGAAGCCCT
GGCCCTGGGGAGGCTTCTCGGAAGGCCTGGCTTCACAGGCAGGCCACAGAAGGATATCGC
GGGCACCGTGACCCAAAGCAAGATAGTGGCTTCCCTTTTATATCCAATCTAATCCTGAT
TGGATGTCCCTGAGGCCCTGCTGGAACAGCCATAGGAGAGGGCCCATGGCAGTAGGGG
AAAGAAGGAAGAAATTCCTGCAACAAAACCTTCAGCTAAACTTTGATTTGTGTATTGTT
ACATAATAATTTTAAAGGGTACATAATGTGTAAAGAGTTTGGATAGAACCCTCTCTTCATA
CTATGGTTTTCGTAAAGGATCTGTTGTTGTTACGGATTTCATTTTTTCCCTCTATTTTTAT
AAAGAGCAGCAGAGTTGTCTTCTCAAACGGCTGCCAAGCTCTGCTTCTTGGGAAGAT

Sequence 941

CCCGTCTGTCGGGTTCGGGCGCGGGCGGGCGCGGCGGCGAGTGGCGCTNTCAGGTGATTGA
CTGGCCAGCTGCCTGAAGGAGCGCCAGGTCTCTTCTGCTGGCAGGTGGCGAAGCCCATTG
GGGCGGCGGTGCAGACCCGCGGCGGCGNGCTGCGGCGGTCTGGCTCGGGAGGCGTTCTCTGG
GGCCAAGGCCATGGCCCCGCGGCTGCAGCTGGAGAAGGCGGCCTGGCGCTGGGCGGAGAC
GGTGCGGCCCGAGGAGGTGTCNAGGAGCACATCGAGACCGCTTACCGCATCTGGCTGGA
GCCCTGCATTGCGGCGGTTGTGCAGACGAACTGCAAAGGAAATCCGAATTGCTTGTTG
G

Sequence 942

CACCCACCCAGATGCCGCTGGCACCAAGCGCAGCCGCCAGCTGCCGCACTTTCCACTT
GTATTGATCACCTATNANNCCCGCGCANAACGGCTACGNCCGAGCGGACCGCGGCCAGCG
CGCCAGCCCTTGGCACNCCCTNGGAGCAGAAAGGGCTCCGGGAGGAACTCCTTGGGAGC
GCCCTGTCCGGANTGCCCTTTGCTCTCTGCAGTGTGATTTCTTTCTGTTCTGGGAGGAGG
AGGAGTACGGANGAAGAGGAGGANGAGGNAGAACGANANNCTGCCCTTCAGAGGTTGGTG
AGGGAGATCGCGCATGGATTTNAAAACCNACCTGAGGTTTCAGAGCGCAGCCATCGGTTG
CNCTGCANGAGGCTAGCGAAGCGTACCTGGTGGNTCTGTTTCGAAAGA

Sequence 943

GTCCGGTTTTGAAACAGAAATGTAGGCATTAGACTTCCTGGGCGGCAGACAAACCAAAGA
GCGGAAATTCATGCAGCCTGCAAAGCCATTGAACAAGCAAAGACTCAAAACATCAATAAA
CTGGTTCTGTATACAGACAGTATGTTTACGATAAATGGTAAGCTTTCACATTTGATTTCT
TCTGTTTTTCCAGTAACTGTGAAGGGAAATTGGTAGGAGGTGTTGTAACAGGGCAGGACC
CAAATGGGAACGGGGGGATGACATTGGTTTGTGAGGTACCGAGCAAAGAGTGAGGATTTT
GGAGTCTCCCTTCTGCTGCTCTGATGTTTTCCACATGCTTATTTCTTTGCCAGGCACTGG
AGATGCAGTCAAGAAAGTGGGAAGTGGCTCTTACTTCTAGTCTGTGTGTATAAGTCACT
TAAGATGGCCGTGTTGACTGCTTCTTTGGGAAATGCCCTGAATAGGAGCATGTAGGGGAT
GCTTACCGAGGCTGGGGAAGG

Sequence 944

GCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGGCCCGACCCGAGCCCGACC
CCGAGCCCAAGCCCGAGCCGAGCCCGAGCGAGACCCCGAGCCCGAGCCCGAGCGCGACC
CCCGGTGCGGCGCGGCTACCCCGGCGGAGGCGGNGGGCGCGGGGCGCGCTCTGAGGCCCG
GGGAGTGCGCCGCGCCTCGACCATGGGCGCGCGCCGCTCCAGGAGGAGGGCGCTGAGGA
GCGAGGCCATGTCTCGGTGGCGGCCAAAGTGCGAGCAGCCCGAGCGTTTGGAGAGNACC
TGTTCCAGAGTCACCCCTGAGAACCGCAACGGCCGCGCAGATCACCTGCTGGCTGATGCCTA
CTCTGGCCACGACGGGTCCCCGAGATGCAGCCGGCCCCCCCCAGAACAAAGCGCCGCTGTCT

TABLE 1
151/467

CCTCGTTCTCCAACGGCTGCTACGAGGGCAAGCCTTCTCAGAGGAAGCCCAAGCATTAGG
AAGCCCGCAGGC

Sequence 945

CGCGTCCGGCACGGGGGAGTCTGTGGTGGCCNGTTTACCTGGGCATCTGGCTGAGAGGAA
GAAAGGCCAACCTGATCCTGAGGGGACCCAGACATATCCTTTGCACTGTCCTTAGAGGGG
CGATGAGCTTTGCAGCATTAAAAAATGGTGAAGGGGGGAAATATTTGAACCAAAGACCA
AATGTTAGGCCGCCGTTATATTTGCAGAAGCTTTGAGAACCATGCGTATAGCCTCCTGCA
TTCTCCCCTCTCCTAGGAGCTCTTTTGTCTCTGTCTTACGAGGCGTCATACAGAGGCAG
TGGGGTGGGCACAGATGAGCAGAGTGGATGGTTCGGTGGGTCCCCACGAGGGCGAGTGGT
GGTCATATGTGATGGCACCCTGTTTACACACCCCTCCTGTGTACCCCCCAGGGTCACCCG
AAGTCCCCACACGCTGGCTCTCCACACCCCTCCTGTTCCAGAAAGCATGTCCCG

Sequence 946

TCGACCNCGCGTCCGGCACTCCCTCTGGCCGGCCCAGGGCGCCTTCAGCCCAACCTCCCC
AGCCCCACGGGCGCCACGGAACCCGCTCGATCTCGCCGCCAACTGGTAGACATGGAGACC
CCTGCCTGGCCCCGGGTCCCGCGCCCCGAGACCGCCGTCGCTCGGACGCTCCTGCTCGGC
TGGGTCTTCGCCAGGTGGCCGGCGCTTCAGGCACTACAAATACTGTGGCAGCATATAAT
TTAACTTGAAAATCAACTAATTTCAAGACAATTTTGAGTGGGAACCCAAACCCGTCAT
CAAGTCTACACTGTTCAATAAGCACTAAGTCAGGGAGATTGGAAAAGCAAATGCTTTTA
CAC

Sequence 947

ACCCCGCGTCCGCTTTTGCATCTGGATCATTTTTCTTTGCCCCACCATGTAAGAAGTGC
CTTTACCTCCCACCATGAACCTGAGGCCTCCCGAGTCATGTGAAATCGCCCCAGCCA
CCCCACCCAGAGGGCTACGTCTGGCAGAGTGGGTTTGGTTAGTTCTGAGGGCTGAGC
TGGCCAGCAGCTCCAGACCTCCAGACCTGCACTCACCTGTGAACCTGACTCTGCAAACT
TCCTCCAAGATGCGCCACCACTCCAGTGAACAACACCTACAGGAGCTTGGAGTTCT
ATTCTCAGATACATCAGCTTCCACATTCCTGTGTGTCCCAGCTGGAGAAGCAAGTCC
CAGACCATGTGCTAAGCACACGTTGGGGTGGGGATGAAATCCAATTGGTGGTGTGTAAT
CCATGCTGGATTGATGAAGCTGAGGCCAGAGGAGGAAGCTTTCTTAATCAACTTCTTAA
CATG

Sequence 948

TAAAAGCCATGGTNATTTGTGCACTGTGCAGTTTCTTATTAGCAAAGGTGCCAATGTAA
CAGGGCTACAGCCAATAATGATCATACAGTAGTGTGCTGGCATGTGCAGGAGGCCACCT
GGCAGTTGTTGAGCTTCTTTGGCTCATGGGGCTGACCCTACTCATCGACTCAAGGATGG
TTCAACAATGCTCATTGAAGCTGCAAAGGGTGGCCATACTAATGTAGTTTCTTATCTGTT
GGATTATCCAAATAATGTTCTGTGCTAGTTCACACAGATGTGTCTCAGCTCCCTCCACC
TTCTCAAGATCAGTCTCAGGTGCCACGTGTGCCAACGCATACACTTGCCATGGTTGTACC
TNCCCAGGAACCTGACAGAACTTCACAGGAGAACTCTCCTGCCCTTTTAGGAGTGCAAAA
A

Sequence 949

CCACGCGTNCGGTCCGGCCTGTGCGGCGCTGCGGCGGAGCGGGCCATGGCAGTGGGGAGGG
GGCGAGTGTAGTGCTGCGCGGGGACGGCGGGAGGTGATCGAGAGAGGCAGGGATGGGGGC
GCCGGAGTGGAGCGGTTGCGGCGGNCTGGGCTGCTGACTGCGCACTTGGAATAGTAGCAG
GCGGCGGCGGCGGAACGCCAGGCAGTGTATGTTTAACTGGAAGAAAGTCTTCCATGAAAA
CCGTCACTTTTAAAAAATAAGGTAATGCCACTTCTGTTTTTCTAAAAAAGACCTGAA
AATGGGGGGGGCCGAACACATTCTTAGGGGGCCCCGGTGGNTTATTGAAATGTCCCTTTC
AAGTTTTTCATTAAATGCNCTCCTGGCTTATTGGGCAGGACCATTCCCTTTGAACCAATCC
TGGGGGCGGGGCTGGGATTTCAACAAGAATTAGGCAATTCTTGAATGGGCCTTCCAATA
ACCCTGNTGGGGAAATTTTCCNTTTTNGCCCCAACCTTGGGGGAATTTNATTATTTNC
AAGNTTTGGGGAAGGGTTACCCTTCNNGGGGGAAANGCTTAACCAATTTTTC

Sequence 950

TTNNGGAGTCGCCACGCGTCCGGCCGGCGACGGCGGCAAGTGGCGGCCCGGCCTGCAGGA

TABLE 1
152/467

GCCCGACGGGGTCTCTGCCATGGGGGAGTGACGCGCCTGCACCCGCTGTTCCGCGGCAGC
GGCGAGACATGAGGAGACCCCGCGACAGGGGCGAGCGGCGGCGGCTCGTGAGCCCCGGGAT
GGAGGAGAAATACGGCGGGGACGTGCTGGCCGGCCCCGGCGGCGGCGGCGGCCTTGGGCC
GGTGGACGTACCCAGCGCTCGATTAACAAAATATATTGTGTTACTATGTTTCACTAAATT
TTTGAAGGCTGTGGGACTTTTCGAATCATATGATCTCCTAAAAGCTGTTACATTGTTCA
GTTCATTTTTATATTAATAAATTGGGACTGCATTTTTTATGGTTTTTGTTCAAAAGCCAT
TTTCTTCTGGGAAAAC

Sequence 951

NNTCCGGAGTCGACCNCGCGTCCGCGGCTGCTGCCTGCTCTGGAGGCAGGCTGGGCGGTG
GCGGCCGAGACTGGCGGGGGTGGACGCCCCGGGCGGGCTGCGCCCCGTTCTTGCAGCTGT
GAATTCCTTTGGACAATTGATGATATTTATCATTGTGCCAGTTTCTACAAATAAAAGAT
GGGTGGATTATTTCTCGATGGAGGACAAAACCTTCAACTGTAGAAGTTCTAGAAAGTAT
AGATAAGGAAATTCAAGCATTGGAAGAATTTAGGGAAAAAATCAGAGATTACAAAATT
ATGGGTTGGAAGATTAATTCTGTATTCTCAGTTCTCTATCTGTTTACATGCTTAATTGT
ATATTTGTGGTATCTTCTGATGAATTTACAGCAAGACTTGCCATGACACTCCCATTTTT
TGCTTTTCCATTGATCATCTGGAGCATAAGAACAGTAATTATTTCTTCTTTTCCAAGAG
AACAGAAAGAAATAATGAAGCATTGGATGGA

Sequence 952

TCNCCCCGCGCCGGTTTTGATACAGAATGAAAGTGCGTAGTATTTTCATTTTGTTATTT
TTGCCATTATACATATAGCAAGCCCTCAATAAATAAATATTGAATGAATGAATGAGTGAGT
GAAGAATTTGTTTATAACAGTCTGTCTCTTGATAACACTGGAATGTCTTTGGTTCTTCC
ACTTCATCCTTTATGTTTTAACTTACACACACCATTCTTACACGTCACTAAAGGAAAAAT
ACCAGTATATATTGGCTAAAATTTTTTTTTTTGTTGTTCAAACACTGAACTCAAATGCCTA
ATTGGGCTAGGGGTCCTCTTAAAGGAGGTTGATGTTTGTCAAATGGGTTATTTTTTAAAA
GCAGTAGATAATTGCTTATTTCAAGGCAAGTAAATGAATTTAGACTAAGCTGTTTCATAGG
ATTCATCATTTTTTCCCTCTCCCAAAGTAATTTGTAAGCCGTAAC

Sequence 953

TCGCCCCGCGTCCGTGATTTCTCAGTGTTCTCCTTAGATACCAAATACAAAGGACGAGGG
ATCAAGCTCAGCGAAAGTATCAGGCATTTAAGGTATCAGGCAGCAATGCGGGGAAAGGTG
AATTTTCTTCAAGCATAGGATGGTTAGGGAAGAGCATTATCACTTTGGTTCTTATC
CTTCAAGCCAGGGGAAAGCAACAGTGAGGACATCAGAGACAAAAGCATTATAGAACTA
ACAAACACAAACGTTTGACAAGTGAGAAAGCTTTATTAAAGCACACATACATGTCAGGGG
GGTGGGAAACAAAAGAGCAAGTTACAGCCCGGGATCCCAAGTTATGCCTTCCATTACAAT
TGCAATCCACACCAAATCAATCTTTGAAAACATTCTCCATTGCGTTTCATACATACAGTA
GAAACCACTGTGGCTGCCCTTAATCCAGTGTGCTTATAGGAAATCAGTTAGCAGCTGACT
CTGTTGAAAG

Sequence 954

CGTCCGGACCCTTATTAAGAATATCCCAGGAAGATGGTGATGAACAGCCTCAGTTTACTT
TTCCACCAGATGAATTCAGTACAAAAAATTACAACAAAAATATTACAGCAGATTGAGG
AACCATTGGCACTGGTGTGAACAATTAACCAGCAAATGTCCTTTTCTAATACCATTGAA
ACTAGACAGCTTTATTTACATGTACAGCATTGCGCGCTCAAGAGCAATAGTATGGTTA
CAGAACCGACGTGAAGCCACTGTGGAGCGAACCAGAACCAAGCAGTGTTAGGCGAGAT
GACCCTGGAGAGTTTCGAGTTGGTCGTCTCAAGCATGAAAGAGTAAAGTTCCACGTGGC
GAGTCACTGATGGAATGGGCTGAGAATGTCATGCAAATACATGCAGATCGGAAATCAGTT
CTTGAGGTTGAATTTTAGGAGAAGAAGGAAGTGGCTTGGGACCCACATTAGAGTTTAT
GCTCTGGTG

Sequence 955

ACCACGCGTNCGGGCAGAAATACGGCGGCATGTTCTGCAACGTGGAGGGCGCCTTCGAGA
GCAAGGACGCTGGATTTGATGCCCTCAGCGTGGGGCAGCGGGGCGCGAAGACTCCTCGG
AGCGGCCAGGGCAGCGACCGAGGATCGGGGAGTCGGCCCCGGGATCGAGGGGGACACCCCG
CGCAGGGGGCCAAGGCCGNAAGAGAGCAGGGAGCCCCGCGCCCGCTCCCCGCCCCCGCC

TABLE 1

153/467

GGGGTAGAGATCCGGAGCGCCACCGGCAAAGAGGTGTTGCAGAACCTCGGCCCAAGGAC
AAGAGTGACCGTCTNCTTATCAAGGGAGGCAGAATCGTCAATGATGATCAGTCCTTTTAT
GCTGATATTTACATGGAAGATGGCTTAATAAAACAAATTGGAGACAATCTGATTGTCCT
GGAGGAGTGAAGACCATTGAAGCC

Sequence 956

CCCGCGTCCGCTACTGTACTTTGCAGTTTGATGTTTATTAACATTCTTTGGGCACCTAGC
TACAATATAACTCAATTTTCTGTGAAAACTATTAATCATCCTATTTTTCTTGTCCTT
AATATGAGATAAATTTTATACCACTGTTTCTCAAACCATCTGTTGTGAGGGACAGTTTG
CTTTTAATTTCCAATTGTCAGAGACCAATACTTTTGTAATAATAATTAAAAACAAACA
TAAAAATAAACTTATTAGAAAAATGAAATAAAAGAGAAATGAAATAAGAATAATTTTATT
ATTAGATTTAACAGATCAAATATTATTTCAATACTCAGATCAAATGTGCAATAAGACAGG
GTTGCAAAAAATGCACACTTTTTTTATTAAATCATTTATATAAGTAATTTATATAAAAA
TAATATTACAGTTGCAACTTTCTGGTGNNTCTCAACTATGACCAACAGGAGGGTACAAG
TAAAGGAGCAATCCCAA

Sequence 957

GTCGACCACGCGTCCGCAGCAAAAGTGCCTGGCTGAAGGACACTGTTGACCCAAAACCTGG
TGACCCTCAACCACCGCATTGCTGCCCTCACAGGCCTTGATGTCCGGCCTCCCTATGCAG
AGTATCTGCAGGTGGTGAAGTATGGCATCGGAGGACACTATGAGCCTCACTTTGACCATG
CTACGTCAACAAGCAGCCCCCTCTACAGAATGAAGTCAGGAAACCGAGTTGCAACATTTA
TGATCTATCTGAGCTCGGTGGAAGCTGGAGGAGCCACAGCCTTCATCTATGCCAACCTCA
GCGTGCTGTGGTTAGGAATGCAGCACTGTTTTGGTGGAACCTGCACAGGAGTGGTGAAG
GGGACAGTGACACACTTCATGCTGGCTGTCCTGTCCTGGTGGGAGATAAGTTGGGTGGCC
AACAAGTGGATACATGAGTATGGACAGGAATCCGCAGACCCTGCAGCTNCAGC

Sequence 958

GTCGACCACGCGTCCGCAGCAAACTCCGGAGGCGCGGTGCTCGGCCCGGGAGCGCGAGCGG
GAGGAGCAGAGACCCGCAGCCGGGAGCCCGAGCGCGGGCGATGCAGGCTCCGCGAGCGGG
ACCTGCGGCTCCTTAAGCTACGACCGTCTGCTCCGCGGCAGCAGCGCGGGCCCCAGCAG
CCTCGGCAGCCACAGCGCTGCAGCCGGGAGCCCTCCGCTGCTGTCGCCTCCTCTGATG
CGCTTGCCCTCTCCCGGCCCGGGACTCCGGGAGAATGTGGTCCCTAGGCATCGCGGCAA
CTTTTTCGGATTGTTCTTGCTTCCAGGCTTTGCGCTGCAAATCCAGTGCTACCAAGTGTG
AAGAATTCAGCTGAACAACGACTGCTCCTCCCCGAGTTCATTGTGAATTGCACGGTGA
ACGTTCAAGAC

Sequence 959

CCACGCGTCCGAGGGTGGGGAAAGGAGGAGAGGAAGAGCACTCCCTTCCCTGGCCCCCTCA
TCCAGCCTCCGGTGCTGTAAAACGCAGGCGCTGGGCCGCGGGCGGAGCTGAGGACAGGGC
TTGGCTGGTCCCAGGATGAGCGACGAGTTTGGTTTTAGCTGGGGATTGTGCTGGCATCCT
GCGAAGCTCCTCCAGCCGGTCTCTGTGCTCGGTTGTCTTGGGGTGGGGCCCATCCGC
CGAGGTGGGGACCGATAGGAGAAGCCGGTGGGTTGTACCCTTACACTTGTGGAGTCTCCT
CTTGCCCTCTACCTACTCCGCCTTTGTCTTAAGGTTTTTGCAAGGCCAGTGCCAAACACAC
ACTAACTGTCCTGGCCTCTCCGTGACACAAGTCTCTTCCAGCCTTCCTC

Sequence 960

CCACGCGTCCGCGGACGCGTGGGGCCGGGACAACCTGGTCTTATCACGGAGGCTGGGGCCA
NGGCAGCCCTTCGGTTCGGGTGGGCCCATGGACCCAGTCCAACGCCGAGGGAATAGGAC
CATCCAAAAGCGGAACCTTCGCCTCAGAAAAAGGGTGCGGGACCCCTCCTACCGTGCGG
TCACGCGTGGACCCTGCCAGCAGCCAGGCCATGGAGCTCTCTGATGTCACCCCTCATTGAG
GGTGTGGGTAATGAGGTGATGGTGGTGGCAGGTGTNGGTTGGTNGCTGATTCTAGCCTTG
GTCTTAGCTTGGCTCTCTACCTACTTAGCAGACAGCGGTAGCAACCAGCTCCTGGGCGCT
NTTGTGTCAAGCAGGCGACACATCCGTCTCTNCACTGGGGCATGTGGACCACCTGNTGGG
CAGGCCAAGGCNNCCCCGAAGCCAACCTGA

Sequence 961

NCCCCGCGTCCGGGAGGCTCCATGTTGTCCCTCAGCGAGTGGCAGCAGCTGCCTCAAGA

TABLE 1
154/467

GGAGCAGATGATGCCATGGAGAGCAGCAAGCCTGGTCCAGTGCAGGTTGTTTTGGTTCAG
AAAGATCAACATTCTTTGAGCTAGATGAGAAAGCCTTGGCCAGCATCCTCTTGAGGAC
CACATCCGAGATCTTGATGTGGTGGTGGTTTCAGTGGCTGGTGCCTTCCGAAAGGGCAAG
TCCTTCATTCTGGATTTTATGCTACGATACTTATATTCTCAGAAGGAAAGTGGCCATTCA
AATTGGTTGGGTGACCCAGAAGAACCGTTAACAGGATTTTCTGGAGAGGGGGATCTGAT
CCAGAAACCACTGGGATTCAAATCTGGAGTGAAGTTTCACTGTGGAGAAGCCAGGTGGG
AAGAAGGTTTGCAGTTGTTTCTGATGGATACCCAGGGGGCAT

Sequence 962

GCCCCGCGTCCGCTTCTCCGAATATAGCAACGTCCAGCAGTGTCCACACTGTGGGAACCT
GGACTACCACTTCGTGAAGCCATTTTCTCCTTCAAAGTTCTCGAAGCTTATTGATGAAA
GCTTTGCTTTAGTAATAGCTATTTTATTGATATTATTACTTTATTACATATCTTTATAG
GGAAACATTCTGTGACATTAATTTCTTTCTAATTTAAAGGAGAGTTACTTTGTTGTATG
TGTGCCACTAAAATAGGGGCTGCCCTTGCCTGTCTTGATTCCCGAGTGTTAATCTGTGG
TTTTGACCAGAGCCCAGATGGGTAATCCTGTGCATTTGGGTTGGGGTTCACTCTTACCA
AGAATCTTTGATGCAGCTTTAAGATGGTGGGAGATGGGGTTGAATTTAGGGAAAGAAT
NTTGTGGGTTATAAACTAAGAGCTTGATAGGAGTTGGAAGGAAACTCTTACTAAAATGT
TAACTTTCTAAAAACCTTCTTTANATCTTNCTTGGGCCTTTGAAAA

Sequence 963

GTGTTTTGGGGATGCCTTTCCTTACCAGATTCTTCTAAAGCCCAGCTGCACCCACCCTTA
AGTGGGAGATAAGGCTTCTGCCGCGGGCTCTGCGTTCGTCCACCCGGCCCCACGTTTGC
TGTGGACTAAACAGGAGCCACTGGACTAGAGTACACTTGACTCTCGGCTCTGCCGACCAA
AAATCCAGGACTAAGGAATAGCAAGGTTAGGCTGAAACAGTCCACACAGGGCTTGCGGT
AAACGTCTTTTCAGGAGCCACTCGCCAGTGCAGTAAGTCGTGTAAGTTAGTTGACTCGAG
CGCTCCAGGGAGACGCCGACCCTACTCTGCGCCGCCCGGGGACCAGCTCTGCTTCCT
CCAGGTCCACTGAGGCAGGCACGCCAGCTCTGGGACAGGTCAGTAAACAAGCCACGAAC
CGCGCCAGGGATCAGAGAACCCANAGTCCCCGCCAGCTGCCGGCACAAGCCAATCGCAGC
GCANCCAGGCGGC

Sequence 964

GTCTAAGGGATCCAGGTCCTGTGTCTCAGGGACCTCTGATGGGATTGAATCCAAGAGGAA
TGCAGGGGCTCCAGGCCNCGGGAGAACCAGGGTCCTGCTCCCAAGGGATGATTATGG
GCCACCCGCTCAAGAGATGAGAGGACCTCACCTCCAGGTGGACTACTGGGACACGGCC
CTCAGGAAATGAGAGGTCCTCAGGAGATCCGAGGCATGCAGGGGCTCCACCCCAAGGAT
CAATGCTGGGACCTCCCCAGGAATTGCGAGGGCCTCCAGGCTCACAAGTCAGCAGGGGC
CGCCCCAGGGCTCTTAGGACCTCACCCCCAGGGTGGCATGCAAGGACCCCCCGGACCTC
AGGGACAGCAGAACCCAGCAAGAGGGCCACATCCATCTCAAGGGCCAATACCATTCCAGC
AACAGAAAACGCTCTGCTAGGTGATGGGCCCGGGCCCCCTTCAACCAGGAAGGACAGA
GCACAGGCCCCCCACC

Sequence 965

TGCGCATGCGCGGAGCGCGGCGCGCGCGGCGGTTGGGCCGTTGGCTGTTCCGGCCCTGGGA
TCCGCGGCCACTCCGCGATCAGACCGCTCTGTGCCGCGAGCCGCGGTGAGCACTCGGATT
CAAGCCGGCGCCAACGAGTCCGGGGGCATCGCCGCGAGCGGCCAAGCTCATGGCCGGCTG
AGCGGGACGCGCCCTNCGCCTCAGCCACCGCGCCGCGCCGCGCCGCTTCTTCTCCTCAGCCG
GCGGCGGCCGCGGCGGCTGAGACTACTGGGACGGGCGCCTGCGGCGAA
CAGGAGGAGAAAGGGAGGTGCGCGGCGCTCATTCCGGGCGCGCCGCGCCAGGCGCGCGCGC
GCCGCGCCCGCGGCTCTGAGGTTGCTCGCGCGCCCC

Sequence 966

TGGAAAATNTTTTGGAAAAAATTACCCTTGGGACCTTGNTTTTNAANCCCNAGGTTCCCN
GTTNNGGCAAATAAANAATGNNGACCCGGGATTTNNGGNNTNAAACCGGGGGTTTTT
AATTTCCCNNNNCNNGGNCCTTTTTTTTNCNCCCCCNCAAGGGGNTTTGGGAAAN
NAAANCCCCCCCCCTTTTTTTTTNNGGGGNGAAANTTCCCCGGGTNNNNGCCNTTTTTTTT
TTTTTAAA

TABLE 1

155/467

Sequence 967

GTCCGCGAGGCTCCGCACCAGCCGCGCTTCTGTCCGCCTGCAGGGCATTCCAGAAAGATG
AGGATATTTGCTGTCTTTATATTCATGACCTACTGGCATTGCTGAACGCATTTACTGTC
ACGGTTCCCAAGGACCTATATGTGGTAGAGTATGGTAGCAATATGACAATTGAATGCAAA
TTCCCAGTAGAAAAACAATTAGACCTGGCTGCACTAATTGTCTATTGGGAAATGGAGGAT
AAGAACATTATTCAATTTGTGCATGGAGAGGAAGACCTGAAGGTTTCAGCATAGTAGCTAC
AGACAGAGGGCCCGGCTGTTGAAGGACCAGCTCTCCCTGGGAAATGCTGCACTTCAGATC
ACAGATGTGAAATTGCAGGATGCAGGGGGTGTACCGCTGCATGATCAGCTATGGGTGGTG
CCGACTACAAGCGAATTACTGTGAAAGTCAATGCCCCATACAACAAAATCAACCAAAGA

Sequence 968

CGTCCGGGAACCTCAGCAACGGTTTCTTCATCCAGGACCCGATTGCTCTGGTGGAGAGGGG
GGGCTGCTCCTTCTCTCCAAGACTCGGGTGGTCCAGGAGCACGGCGGGCGGGCGGTGAT
CATCTCTGACAACGCAGTTGACAATGACAGCTTCTACGTGGAGATGATCCAGGACAGTAC
CCAGCGCACAGCTGACATCCCCGCCCTTCTGCTCGGCCGAGACGGCTACATGATCCG
CCGCTCTCTGGAACAGCATGGGCTGCCATGGGCCATCATTTCCATCCAGTCAATGTCAC
CAGCATCCCCACCTTTGAGCTGCTGCAACCGCCCTGGACCTTCTGGTAGAAGAGTTTGTC
CCACATTCCAGCCATAAGTGACTCTGAGCTGGGAAGGGGAAACCCAGGAATTTGCTACT
TGGAATTTGGAGATAGCATCTGGGGACAAGTGGAGCCAGGTAGAGGAAAAGGGTTTGGGG
CCGTTGCTAGGCTGAAAGGGAAGCCACCACTGGCCTTCTTCCCCAGGG

Sequence 969

GATTGGAGGAGTCACATCCCCTCTTCAGCCGCAGCACCCCTCCCTCCCATCCTCTAGCTC
TTCCCGCGGTGGTGCCTCCCTCCGACCCTGCTCTCCCTCCTGGGCCCCGCGCAAAGCC
CCCTCTGTTCCAGCTCCCGGGCCTCGGCTGCCTCCCCGCCCTCCCATCCCTTCTCTTCC
CAGGGCCTGGAGCGCTCCCTTACATTCTGAGATGCCCTTCTCGGGGCTGTCCCCCTTT
GCCTCCCCAGCATCCCATTTCTAGGCCTTTTCAAGACCCTTCCAGAGCGGCCCTTTCC
AGTCCCTTTCTCGTTTTCCATTTCCAACCTTGCCTCTTTTGCCTCTTTGTTCACTTTGCT
TCCAAGCTCCCCCTCCCTCTTCCCTTCTGCTTACCCTGCTTTGATCTACGCAGCCCCAAA
CTCAAGCTCCCCGCTTTCAAGGTGGTGCGAGGTTGTTGGGGGGTGCGGAAGGGCCTGCCA
AGTCCATTTTTTCGAGGGG

Sequence 970

GTCCGAGATCGCGAGCCGCCGCCCTTTTTTTTTTTTATAAGATTATTAGTATAAAAN
GGGGAGACGAGGTTAGGGCCCTGGGAAAGGTGGGAGATCAGCCAGAGACAGGTTTCCAG
AACAGAATGTCTGGCCTTTGTGGTGAGGAGGGACTGTGGTATGAGCCGCAGAAGCGGGCC
AGGGGTAAACCCTCCTGTGCGTCCTTCTTCAGCCTGGTCCTGAGGGTGACCCTTTGATC
CTGGGTTCTCCAGGTAGGGCTGTGAGCTGTGAGTTGGATCCTTTTGGTGAATGGTCTCT
CTCATCTGGCCTGTCACTCAATGTGGAATAGAGTGAGTGAGTTCTATGGGTTCTAAGTCC
TGCTCTGGAACCATAAGTAAGTTATCCTCTCTGGGCTTCAGTTTTTTCATGGAAAGTTGCG
TTAAGAATCTAGTTTAAGGCCAGGCATGGTGGCTCACCGCCTTGTAAATCCAGCACTTTG
GGGAGGCCAAGGAAGGTGGATCATGANGTCAGGAGATCGAGACCATCCTNGCTAACATGA
TNAACCCGTGTCTTTACTTAAAAAATAC

Sequence 971

CCTGCCAGTGGTGAGCACCTTCGGCCTCCAGGTGCCTTTCTTCTTCTTCGCGGCCATNTG
CTTGGTGAGCCTGGTGTTCACAGGCTGCTGTGTGCCGAAACCAAAGGGACGTCCNTGGA
GCAAATCCGAGTCCTTTTTCCGCACGGGGGAGAAGGTCTTCTTGCCTAGGTCAAGGTCC
CCGCCTGGAGGGGGCCAAACCCCA

Sequence 972

GCGTCCGCGACGCGTGCGGCGGACGCGTGGGTGAGCCTCCACCTGGAAGAGAGCTANGGG
CCGGGCAGGCCGGGCAGCTGCCACCCCGCCCGGCCGACGCCCCGCATGCCCCGAAGTCC
CTGGCGCCACCCGGCCGCGGCCCTGCGTGTGACCCGCGGGTCGATACCTGGCAGCCCCA
GTGCTGGGGCGCCGCGGCCCTGCTCGCCAGGAGGAGAGCGAGGGCCCCACACTGAGTCT
CTTGAAGCCTCACGTTTCCCTGGGGGGGTGCTGCATCGTCGGGTGTCCCTCACCCACCT

TABLE 1
156/467

GGGGAACCTCTGTCTTCAGGTCACCCCTTTTCAGGGGCCTGG

Sequence 973

CGTCCGGGACCCTGCTCATGGAGAACATCAGCAGCTGGCTGCTCCTTCGCTGACGCCCTG
GGCTACGTGAACCTGCCGCTCACCTTTTTCTGCCGGGCAGAGCTGGATAGTGAGCCCGAG
CGGGTGGCGTCCGTCCTGGAAGCTGAAGGAGGACTGNAACAACACTGAGAACAAAGAA
CGGAAGTCCTTNCAGAAGGAGCTTGTGATGGCCCTACTGAAGATGGACTGCCAGGGCCTG
GTGGTCAGACTCATCCAGGACTTTGTGCTCCTGACCACGGCTGTAGAGGTGGCCCAGCGC
TGGCGGGAGCTGGCTGAGAAGCTGGCCAAGGTCTNCAAGCAGCAGATGGACGCCTACNAG
TCTCCCCACCGGTGACAGGAACGGGGTTGTGGACAGCGAGGCCATGTGGAAGCCTGCGTA
TGACTTCTTAC

Sequence 974

TCACCACGCGTCCGCGAAGCGTGCACCGCTGCGCCCCCGCCGGTGAGCGCGGGGAGCGCC
GCAAGCCCCAACGCCGGGGGCGAGCCCCGCTCCGGTGCGCCGCCGNCGGAGGCCTCGCCGG
TGCAGAAAAAGGAGAAGAAGGACAAGGAGCGCGGAAAAACGAGAAGGAGAAGAGTGCCCTA
GCCCGGGAGCGCAGCCTCAAGAAGCGCCAGTCGCTGCCCGCTCCCCACGTGCCCGCCTC
TCTGCCAGCACCGCCTCTGAGCTCAGCCCCAAATCCAAGGCCAGGCCATCCTCTCCCTCC
ACATCCTGGCACAGGCCTGCCTCCCCCTGCCCCAGCCAGGGCCAGGCCACACTCTGTCT
CCAAAGCCACCGTNCCTCCGAGGCACCACTGCATCCCCCAAGGGGCCGGGTTGGAGGAA
GGAGGAGGCAAAGGAGAGCCCCAGCGCCGCANGGCCCGAGGACAA

Sequence 975

TCCGCAGAAACGGACTTTCTCATCATGCTTTCCTATGGTGGGTATGAGGGGCCAGCTGAT
ACCAACCAACTGGCCTGTATCTATCTATCTGGATTGACTTGAATTTTTAAATGTGTAT
CGTTTTAAAAAATAATGTTTGCAAATTTGCACATAGGATCTTGCACTGTTCAATTTCA
GTGGGGTGAGTCTTCACTAAAAACACAAGCAGAGCTCCTGGGAAAAGAGACTGGAAGT
GGTTCAGGATAAAGAGATCCATGGTGGGCAGGGCTCTTAGGTCACAGAGCTCTAGAAGCA
GCTGGACTTGAACCCACAATGGCTTGTGTAAATTCGTAAATTTATGGTTTCTAGGAAAA
GCTGCATTG

Sequence 976

GCGTCCGGAAGAACTGTGGAAGTGCAGTTGGCAGACAATTTGTTACAAATATTTAAAGG
AAAGATTTTGCCAATATGACCAGCTTGGTGGACCTGACTCTATCCAGGAATACAATAAGT
TTTATTACACCTCATGCTTTCGCTGACCTACGAAATTTGAGGGCTTTGCATTTGAATAGC
AACAGATTGACTAAAATTACAAATGATATGTTCAAGTGGTCTTTCCAATCTTCATCTTG
ATACTGAACAACAATCAGCTGACTTTAATTTCTCTACAGCGTTTGATGATGTCTTTGCC
CTTGAGGAGCTGGATCTGTCTATAATAATCTAGAAACCATTCTTGGGATGCTGTTGAG
AAGATGGTTAGCTTGACATACCCTTAGTTTGGATCACAATATGATTGATAACATTCCTAAG
GGGACCTTCTCCATTTGCACAAGATGACTCGGTTAGATGTGACATCAAATAAATTGCAG
AAGCTACCACCTGACCCTCTCTTCAGCGAGCTCAGGTACTAGCAACCTCAGGAATCATA
AGCCCATCTACTTTTGCATTAAGTTTT

Sequence 977

NCTCCAACAATTATGGCTCATCCTTCCTTTTACTCTGTCTCACCTCCTTTAGGTGAGTAC
TTCCTTAAATAAGTGCTAAACATACATANACGGAAGTNGAAAGCTTTGGTTAGCCTTGCC
TTAGGTAATCAGCCTAGTTTACACTGTTTCCAGGGAGTAGTTGAATTACTATAAACCATT
AGCCACTTGTCTCTGCACCATTTATCACACCAGGACAGGGTCTCTCAACCTGGGCGCTAC
TGTCATTTGGGGCCAGGTGATTCTTCTTGCAGGGGCTGTCTGTACCTTGATAGGACAGC
AGCCCTGTCTAGAAAGGTATGTTTAGCAGCATTCTTGGCCTCTAGCTACCCGATGCCAGA
GCATGCTCCCCCGCAGTCATGACAATCAAAAAATGTCTCCAGACATTGTCAAATGCCTC
CTGGGGGGCAGTATTTCTCAAGCACTTTTAAAGCAAAGGTAAGTATTCATACAAGAAATTT
AGGGGGAAAAAACATTGGTTAAATAAAAGCTATGTGTTCTATTCAACAATATTTTT

Sequence 978

CCCCGCGTCCGGGTCCCGCGACTCCCGGACTGGAGAAAAACGGCTCTTGCGATGGGGCGA
AGTCCGAGCTGCGGCGGGCGTTGGTCCGTGCAGGGAAGTGGGAATCGTTAGGTTCTGTTCT

TABLE 1

157/467

GGACCCGCCGCCCATGGCCCAGGCGTCTCGCTCAGGTAGCCTGCCTCCACTCGTTATCG
TGCCCCCGCTGAGGGCGCAACCCGGGGGCACTGGGGAGGAGCAGTGGGAGAGAAGTCGAA
CGGNCGNCTTCCGCTGGGCAGAGCTCAGCAGTACTTGGCAGCATGGGACCCAGCTTCCT
TCCTGCTCCTGATCCAAAAGGACTTACCTNCTCTGTTGCATGAGGCAGAAGCTTTGTATA
GCCTGGCCTCAGAGGAAAGCTTAGCTCTGGAAGTGGAGCAGCAGCTGGGCCTGGAGATCC
AGAANCTGACTGCACAGATCCAGC

Sequence 979

AGGCTGNTACGAAGCGAGCTTGGGAGGAGCAGCTGGCCTGCGGGGAGAGGAGCATCCCG
TCTACCANGTCCCAAGCGGTGTGGCCCGCGGGTCATGGNCAAAGGAGAAGGCNCCGANAG
CGGCTCCNCGGCGGGGCTGNTACCCACCAGCATCCTCCAAAGCACTGAACGCCCGGCCCA
GGTGAAGAAAGAACCGAAAAAGAAACAACAGTTGTCTGTTTGAACAAGCTTTGCTA
TGCACTTGGGGGAGCCCCCTACCAGGTGACGGGCTGTGCCCTGGGTTTCTTCTTCANAT
CTACCTATTGGATGTGGCTCAGGTGGGCCCTTCTCTGCCTTCATCATCCTGNTTGTGGG
CCGANCTGGGATGCCATCACAGACCCCCTGGTGGGCCTCTGCATCAGCAAATNCCC

Sequence 980

ACCCCGCGTCCGAAAAGAAGAGTGGCCNGTTCAGGGGTAGCTCCAAAAGAGACTGCAG
AGCTGTCCGAGACCCTGACAAGGGAGGCCCAAGGCAACAGTTCCGCAGGAGTGGAGGCAG
CAGAGCAGAGGCCTGTGGAAGATGGCGAGAGGGGCATGAAGCCAACAGAAGGGTGGAAAT
GGACCCTGAACTCCGGGAAGGCTCGAGAATGGACACCCAGGGACATAGAGGCTCAAACCTC
AGAAACCAGAACCTCCAGAGTCAGCAGAGAAGCTTCTGGAATCTCCCGGTGTGGAGGCTG
GAGAAGGGGAGGCTGAGAAGGAGGAGGCGGGGGCTCAGGGCAGGCCTCTGAGAGCCCTGC
AGAACTGCTGCTCTGTGCCCTCCCCCTCCACCAGAGGACGCTGGGACTGGAGGCCTGA
GACAGCAGGAAGAGGAAGCAGTGGAGCTTTCAAGCCCCCACCAGCCCCCTGTCTCC
CCCACCCCGAGCCCCAACTGCCCCCAACCTTCTGG

Sequence 981

GCCCCGCGTCCGAAAAGAATGGGTGAACCAATCGGCCTTTGTGAATTTATTAGTGCCTT
CTCTGTACCAAGCACTGGGTAAAGGCACTTTTGTGGAGCATTAGACAGTAACCCTCAAGGA
GCTAGAGAACC GGATGGGAGACATGAGCGGTAATTAACCTCACTTGTTCCTCAGAGTTTCT
ATTTGTTTTGATTTCTTTTTCTGTGACTTATTTCTATTTCTTTCTCCATGTAATT
TTCATATGGCCCACTAATAAACAACCTGGAATTACAAGGAAAAAAATTCTTCCTC
TAATAACTTTCCAAATTTGTGGAATATTTATTTGTAATAGCAGTTATCAGTTATGCTTAT
ATAGCATTAAAAATTTCTCCTCTTTGACTACACACACAACCACAGTGTGGTTCTAATCAT
GGAGATATCAGTAATTTTAGTAAGTGAATTTGAGGACATTTCTNTGTTTAGCATGTAT
GCAAACCTGATATGTAATCTGAGGTTCCAAAGTCAATTTTTTTCTTTTT

Sequence 982

TNGGGAGTCGACCCCGCGTCCGGTTTTTGTGAGGCAGTGAGACCTAAGGTAACCTTTATC
AAAAGGATGGAGTTGGGAAAAGGAAAACCTACTCAGGACTGGACTGAATGCGTTGCATCAA
GCAGTGCATCCGATCCATGGCCTTGCCTGGACCGATGGGAATCAAGTTGTCTAACTGAT
TTGCGGCTTCACAGTGGAGAGGTCAAGTTTGGGACTCCAAAGTCATTGGACAGTTTGAA
TGTGTCTGTGGGTTGTCTGGGCCCCACCTGTTGCAGATGATACACCTGTTCTACTCGCT
GTCCAGCATGAGAAGCATGTCACTGTGTGGCAGCTGTGTCCCAGCCCTATGGAGTCAAGC
AAATGGCTTGACGTCTCAGACTTGTGAGATTAGGAGGGATCACTACCTATCCTTCCCCAG
GGCTGTGTGGCACCCAAA

Sequence 983

GTGTCGACCCCGCGTCCGCGCCCTGCCTGCAGTTGAGATTGAGATGCCTTCTGACAGAGT
TCAGCCTCTTGAGAGTCTTGGGGATTGTTGGCACCTAAACAGAAATCAGNGACCCGGGTG
CTTTGTGGCCAGCAGCACAGAATCAAACCCGCATCCCAGCATTGGGCCACCCATCTGAGG
GAGGCCAAAATCATCACAGATGCTGCTGTGCTGCAGACAGATACATGCTAGTCCAGAGAG
CCGCCCCGTGAGATGGCTGTGAGAACCATGTGTCTAAGGCGTAAGATAAGGATGGAAGGCT
GTCCAAGTTATTTGGAAGGCCTCGGCAGCTTGGGATTAGCTTGGGAGCGCAGCGCTGCAA
AGTGGAATATGAAAAGACCACACAGGCCCAAGCAGTCCAGAACTGGGCAAAAATATT

TABLE 1
158/467

CTGCAGTGGGGATTTATTTTTT

Sequence 984

CACGCGTCCGGAGTACGGAGTTGTTCCCTTTACTGGCTGAAAGATATATTGGAATTGTAAA
GATGCTTTTTCTCATGCATTGAAATTATACATTATTTGTAGGGAATTGCATGCTTTTTT
TTTTTTCTCCCGAGACAGGGTCTTGCTCTGGCGCCAGGCTGGAGTACAGNGGCATGAT
CTTGGCTCACTTCAGCCTTGACTTGGGCTCAAGTGATCCTCCTACCTGAGCCTTCTGAGT
AACTGGGACTACAGGTGTGCACTCCTCGCCTGGCTAATTTTTTATTTTTGTACAGGCAG
GATCTTGCCACCTTGCCAGGCTGGTCTTGAATCCTGAGCTCATGCCATCTGCCTGCCT
TAGTCTCCAAAATGCTGGGATTACAGGAGTGAGCCACCATGCCCGGCTGGCAGTTGCAT
GGAAGAGAACACCTNTTTATGGCTTACCCTCTAGAATTTCTAATTTATGNGNCTGTTGA
AATTTTTGGTTTTTTTACCT

Sequence 985

GTCGACCACGCGTCCGCTCGGCTTCTGCTGATGGTCAGGGTTTTGGCAACTCCCCGGTG
TGAGAGGGGTAGGGAGTGCTCCCGGCGGCGACGGGGCCGAGTTACACAGCCGCCGGGGCA
GTAGTCGAAGGCCCGGCGCGGCATGCTCTGGGTGCCGCGGTGCGGGCAGTGAACGCGCGC
CGGGCGGGATGGGCCGCGCGCGGGCGCCAGAGCTGTACCGGGCTCCGTTCCCGTTGTACG
CGCTTCAGGTGACCCCGAGCACTGGGCTGCTCATCGCTGCGGGCGGAGGAGGCGCCGCCA
AGACAGGCATAAAGAATGGCGTGCACTTTCTGCAGCTAGAGCTGATTAATGGGCGCTTGA
GTGCTCCTTGCTGCACTCCCATGACACAGAGACACGGGCCACCATGAATTTGGCACTGG
CTGGTGACATCCTTGCTGCAGGGGCAGGATGCCCACTGTCAGCTTTCTGCGCTTCAGGC
ACATTAACAGCA

Sequence 986

CGCCACGCGTCCGCGTACGCGTGGGCGCGACCGAGCGTGCGGACTGGCCTCCCAAGCGTG
GGGCGACAAGCTGCCGGAGCTGCAATGGGCCGCGGCTGGGGATTCTTGTTGGCCTCCTG
GGCGCCGTGTGGCTGCTCAGCTCGGGCCACGGAGAGGAGCAGCCCCGGAGACAGCGGCA
CAGAGGTGCTTCTGCCAGGTTAGTGGTTACTTGGATGATTGTACCTGTGATGTTGAAACC
ATTGATAGATTTAATAACTACAGGCTTTTCCCAAGACTACAAAACTTCTTGAAAGTGAC
TACTTTAGGTATTACAAGGTAAACCTGAAGAGGCCCGTGCTTTCTGGAATGACATCAG
CCAGTGTGGAAGAAGGGACT

Sequence 987

GGTCGCCCCGCGTCCGTAGCAGTTACATCTACGAGGCTATTATGGATTGGAGGATGAGAA
GGGAACTGCATGTACCTCAACAAGGCGTCGGTCAACACCGCGAAGTTTGGCAGGCTTGAC
AAGTGGAGTTTTTGAATCTATAATGGTTCAAGTTTTGAGACAGGAAGAAGAGCTGAGAGC
AAAAGAAGAAAAAGGCTTCGGGAGCAGGAAAGAAAAAGAGCAGAAGAAGCTAGTCAAAA
GGAAATAGAAGAATGGGAAAGAAAACTTCTAGCTCAAGCAGCTCCAATTGTATGGAGAC
CATGTGGGAAATTCCAGCTATTGGGCATTTCTTTGTTTAGCTCAGCAAATTTCTAAATTT
GCCAGAAATAGTCTTTTACCGAAGTGAACCGTTGTCTTCTGATGCCTCAGTGTAATGCT
TTTCTATCGAAAATAATGACTTCTTATTTAAGTCCTCCCATCGCAGA

Sequence 988

NCCCCGCGTCCGAGTCCCCTGTCTGTGGCACCAAGCACTCCCGACTGTGCGCTGACTCTC
CCCGCCAGCCAGCAGCCTTTTCCAGAGAGGCTGTGGTCCATAGCCTCTGTTCTGTTTTCA
CTGCAGGACCAGGCACGAAAGTTAAACAAAATGAAGATTTTTCTGAATCTCATAAAAC
AGTGTGTTGTTGTGGATCACTGCCCTTATATGGCAGAATCTTGCAGGCAGCATGTCGAGTT
TGATATGCTGGTGAAGAATAGAACCCAAGGAATCATTCCTTTGGCCCCCATATCTAAATC
ATTGTGGAATGCTCAGTAGAATCTTCCATGGAATATTGTAGAATAATGTATGATATATT
TCCTTTCAAAAAGCTGGTGAATTTTATTGTGAGTGACTCTGGAGCACATGTTTTAAATTC
TTGACTCAAGAAGACCAAAATTTACAGGAGCTAATGGCAGCATTAGCCCGCTGTTGGGC
CTCCTAATCCTCGGGC

Sequence 989

GTCGCCCACGCGTCCGTTCTGTTGCTGATGGACCTGCTTGCAAAAGGCCAGCTCTGTTGC
ATTCCCAATTTTTGACACCACCTCAACACCAACGCCCGGGGAGAGCATGGAAGATGTTT

TABLE 1

159/467

ATCTCAATGAACCCAAACAGGAGAGCAGTGCTGATCTGCTTCAGAACATTATCAACATTA
AGAATGAATGCAGCCCCGTTTCCCTGAACACAGTTCAAGTTAGCTGGCTGAACCCCGTGG
TGGTCCCTCAGAGCTCCCCCGCAGAGCAGTGTGAGGACTTCCATGGAGGGCAGGTCTTTT
CTCCACCTCAGAAATGCCAACCATTCCAAGTCAGGGGCTCCCAACAAATGATAGACCAGG
CTTCCCTGTACCAGTATTCTCCACAGAACCAGCATGTANAGCAGCAGCCACACTACACCC
ACAAACCAACTCTGGAATACAGTCCTTTTCCCATACCTCCCCAGTCCCCCGCTT

Sequence 990

GTCCGGCTGGGACCTCCTCCTGTTGGGGTCCCATGAACCCTTCCAGTTCAACCTTTCA
GGACGGAACCCCCAGAAACAGGCCCGGACCTCCTNCTCTACCACCCCCAATCGAAAGACA
ATGCCTGTGGAAGACAAGTCAGACCCCCAGAGGGTCTGAGGAAGCCGCAGAGCCCCGG
ATGGACACACCAGAAGACCAAGATTTACCGCCCTGCCAGAGGACATCGCCAAGGAAAAA
CGCACTCCAGCACCTGAGCCTGAGCCTTGTGAGGCGTCCGAGCTGCCAGCAAAGAGATTG
AGGAGCTCAGAAGAGCCACAGAGAAGGAACCTCCAGGGCAGTTACAGGTGAAGGCCAG
CCGCAGGCC

Sequence 991

NCGCGTCCGCTTAAATGACTCGTTATCATTGCAATGAATGGAAAATCATTCTCAGTGA
TACTGGAGCATTTTCAAGACCTTGTTCTTAAGTTGATGTTGCATGGCACCGTGTTTGCCC
GTATGGCACCTGATCAGAAGACACAGTTGATAGAAGCATTGCAAAATGTTGATTATTTTG
TTGGGATGTGTGGTGATGGCGCAAATGATTGTGGTGCTTTGAAGAGGGCACACGGAGGCA
TTTCCTTATCGGAGCTCGAAGCTTCAGTGGCATCTCCCTTTACCTCTAAGACTCCTAGTA
TTTCCTGTGTGCCAAACCTTATCAGGGAAGGCCGTGCTGCTTTAATAACTTCCTTCTGGT
GTGTTTAAATTCATGGCATTGTACAAGCATTATCCAGTCTTCCAAGTGTTACTCTGCTGT
ATTCTATCTTTAAGTAACCTAGGAGACTTTCCAGTTTCTCTTAATTTGATCTGGCAATCT
TTTGGGTAAGTGGGTATTTANAAT

Sequence 992

TTTTCACTGCAGGACCAGGCACGAAAGTTAAAACAAAATTGAAGATTTTTTCTGAATCTC
ATAAAACAGTGTTTGTGTGGATCACTGCCCTTATATGGCAGAATCTTGACGGCAGCATG
TCGAGTTTGATATGCTGGTGAAGAATAGAACCCAAGGAATCATTCTTTGGCCCCCATAT
CTAAATCATTGTGGACTTGCTCAGTAGAATCTTCCATGGAATATTGTAGAATAATGTATG
ATATATTTCTTTCAAAAAGCTGGTGAATTTTATTGTGAGTGACTCTGGAGCACATGTTT
TAAATTCTTGGACTCAAGAAGACCAAAATTTACAGGGAGCTAATGGCAGCATTAGCCGCT
GTTGGGCCTCCTAATCC

Sequence 993

CGCGTCCGGGCAGGAGCACCACTCAAGGAGCTACACCCCTTGATCGGCTTGACCGCCTT
ACCTCAGGGGTGCTTATGTTTGCCAAGACAGCTGCAGTCTNTGAGAGAATTACGAGCAG
GTTCCGGGACCGGCAGCTGGAGAAGGAGTACGTGTGCCGGGTGGAAGGGGAGTTCCCCACT
GAGGAAGTGACCTGTAAAGAACCCATCTTAGTGGTGTCTTACAAAGTAGGGGTGTGCCGT
GTAGATCCCCGGGGCAAGCCCTGTGAGACAGTGTTCAGAGGCTAAGCTACAATGGCCAG
TCCAGTGTGGTACGGTGCCGGCCACTCACAGGCCGCACACACCAGATTGAGTCCACCTT
CAGTTCTTGGGCCATCCATTCTCAACGACCCCATCTACAACTCAGTTGCCTTGGGGTCC
TTCTCGAGGCGGGGGCGGCTACATTCCCAAGACAAACGAGGAGTTGCTACGGGACCTGG

Sequence 994

ACGCGTCCGCGACCGCTGGGCATGCGGGTGTGGCGCGGTATCCCCGCCCTGCCAGCAT
CTGCCCCACGTTTCTTCAAGGCTAAACTACCGGGATCCCGGGCTTCTTCTAAAGTAAAC
TCGCTCCGGAAGGCCAACAGTCCAGCGGCCAGACGGGCACCTGGGAACGCGGGCCTAAC
GCGTACTGGAGACGGAGTGGCGCCCGGCACTGCGCGCCTCCTCCCCGCGGGAGACTGCG
TGCTAAGCTCAGCAAAGCCCCGCTGTGGAGACGGAGCCATGTCGCCCATTACCTAATGAA
ACTGAGAAGGGAGACTCAGTCTCTTCTAGCCCCGAGCGCAAGCTCTGCTGGACTTGGC
ATCGTCCGCCCTCCACGATCCCACTCCGGGTTTTCCCCATTCCCAGCTCGGCTGCAAC
CGAGAGACAGACGGAAGAAAC

Sequence 995

TABLE 1
160/467

TCCTCCTGGCCCTGTTAATGTCTGGGGCCNGGCCGGGGGAGGATGGCGCCCTAGAACCCGG
CCTTGCTGGGGTAGGGGCGGGAGGGGACGGGGTGGGGACCGGCCATGTCGGAGGTGACCC
GGAGTCTGCTGCAGCGCTGGGGCGCCAGTTNTAGGAGAGGCGCCNNACTTCGACTCTTGG
GGCCAGCTGGTGGAGGCGATAGACGAGTATCAGATATTAGCAAGACATCTACAAAAGGAG
GCCAAGCTCAACACAATAATTCTGAATTCACAGAAGAACAAAAGAAAACCATAGGCCAAA
ATTGCAACATGCTTGAAT

Sequence 996

CGCGTCCGGCCTGAGCCGGCGGGTCCCCTGTGTCCGCCGCGGCTGTCTGTCCTCCCGCTCCC
GCCACTTCCGGGGTCCGAGTCCCGGGCATGGAGCCGCGACCGTGAGGCGCCGCTGGACCC
GGGACGACCTGCCAGTCCGGCCGCCGCCACGTCCCGGTCTGTGTCCACGCCTGCAG
CTGGAATGGAGGCTCTCTGGACCTTTAGAAGGCACCCCTGCCCTCCTGAGGTCAGCTGA
GCGGTTAATGCGGAAGGTTAAGAACTGCGCCTGGACAAGGAGAACACCGGAAGTTGGAG
AAGCTTCTCGCTGAATTCGAGGGGGCTGAGAGGATGGCCACCACCGGGACCCCAACGGC
CGACCGAGGCGACGCAGCCGCCACAGATGACCCGGCCGCCGCTTTCAGGTGCAGAAGCA
CTCGTGGGACGGGCTCCGGAGCATCATCCACGGCAGCCGCAAGTACTCGGGCCTTATTGT
CAACAAGGCGCCCCACGACTTTCAAG

Sequence 997

GTCCGGCCAGGAGCCAGGCCGAGCGGGAGCTGACCANGGCTTGA CTGGGTACAGAACGA
GGCACCAGTCCCCTTGCGAACCGAAGGGCCTCGCAGTGGATGGAGGAGGCCAGCCCTGA
GGTCAACGCCAACAGGCTAGCCTGGCACGGGGCCTACAGGGTGGGTAGGCGGGCGTGCC
CGAGCCGTCCAGGGCCTTCCCTCAGGTCCCGGGCCGAGGGGCCTACGCTGCGGGCCCGGA
ACAAGGCCCGACTCGGCCCCCTCGGGACCAGAGCCCCACCCGATCGGAAGGCGGATCCTTT
ACCAGGGCCATAGGCCAGTGACTGGGCGGGCCCCCTTNGGGCCTCCCATTCGGGGCCCGGA
CTANGGAACNAGGCCCGNNGAGGGCCCCCTTGGCCTACCAGACCCTTTNTNANGCCGACA
GCCGNCANGGAAAGAT

Sequence 998

CGTCCGGCCCAGAGCCCGCAGCACGCCGCCGCCGAGCCTAGGTCACCTCCAGCATCTAG
CACAACGTCTGCAATGGAACAGGCGAGCTGTGAATATTTGTGGAATGCATGGGTGGACTA
AAGACCTATCACCTCACTCTAGAATGCCAGCATGTTGGAGCATGAGGACCAAGAACCAT
GGTGTTCCTCCACTCATCAGAGCCGTATCATTTTGATGCATGCGCCAAGAAAGAAAATTC
AATCATCAGACTGAAGCAATCAAACCTCAAATGGTGCTGTAACTGAACCACACATAGAC
ATGCCATTCTTCTAAGGACCTTAAGATCCACCCAGGAGGAGCGCTAGCTGCTGTTCCC
CATTCGATGCCCTTTTCGGCCCCGGAAGTAGCCGGAAGATTGCCCCGCCAAAATTCGCC
TAACCAGCAAGTTAGGTGTGGCATCTTCCACAAGCANGGAGCCGTTGTAGGAAAAAGNG
GTCTTGGGGAAGGTTTTTCG

Sequence 999

CCCGCGCCGGCAGTTTCNATGGTGTGTAATAATTTGAGAAAATGAATGTGTATACATACA
AGAGTAAGTCAGATTGTTAGACTCATCCCTCAGTATTCATATGTTTTGTGACTGATTTT
ACAGTTCTCTACCTTTCTCATTTACAAAAAAGAAAAGAAAATTTGATTCAGC
AATTCCTAAAAGTATTGTATTCAGTGACATCTTTGGAAACACCAGTTTCTGTTATCAACT
TCAAATAATAGTCAAGTTTTATGTATGATCTAAAGGGAAAACAAGTTTGTTCATCC
TGTGATAATTTTCTTTTGAATGAGGTGTTGCAAGAAATGGAAAATTAACCACT
CTGTAACAATTTTGTGTGCTTCTTTGATTTTCTCTGTTTTTAAATGGGTACCTTA
TATTTGTACCTTTACATATTGAATTCATGAGGAGAGGTTATGCACAGCCTAGTTATTTGA
CATTCCAGGGGGTTTAAAAAAA

Sequence 1000

CCCGCGTCCGGCGGTGGCGGTGGTGGCGGTGGCGGCGGTGGCGGCGGCGGCGGAAGGGGGC
GGAGAGGAAGGAGCGCGCGGGACCGGGCCGGGACAGCGCTACTTTGGGCTCCGGGAGT
CGCTCCGCGCCCCGCGTTGTAGCAGCTGCCGCTGCAGCCATAGCAGCAGGTCAGTCATTG
GCACCATGAACTGGAATAAAGGTGGTCCTGGCACTAAGCGAGGATTTGGCTTTGGAGTT
TTGCCATCAGTGCTGGGAAAAAGGAGGAACCCAACTCCACAGCAGTCCACAGTGCCT

TABLE 1

161/467

TTGGGGCAACCAGCTCTTCTTCTGGATTTGGAAAGTCAGCTCCACCACAGCTTCCTTCTT
TCTACAAAATTGGATCTAAGCGGGCCAACTTTGATGAAGAAAATGCCTATTTTGAAGATG
AGGAAGAAGATTCTAGCAACGTTTGATTTACCTTACATTCTGCT

Sequence 1001

CCGGCCGCGCCGCGCCGCCCCGCGCCACCGCCTGGGGGTTGGTTGAGGCGGACGGCGGGG
TCCGGGCCGAGTACGTCGTTCCCGCTGCGCTAGGGGAAGCGGGCAGTCAGAAAAATGGG
TAAGAAGAGTCGAGTAAAACTCAGAAATCTGGCACTGGTGCTACAGCAACTGTGTCACC
AAAGGAAATCTTGAACCTGACCAGTGAGCTGCTGCAGAAATGCAGCAGTCCGGCGCCTGG
CCAGGAAGAGTGGGAAGAGTATGTGCAGATCCGGACTCTGGTTGAGAAAAATACGAAAAAG
CAAAAAGGTCTTGTCCGTTACTTTTATGAGAAAAAGAGAAGATTACTTTCCTGATCTAAT
GAAATGGGCCTCTGAAATGGGGCTTCTGTGAGGGTTTTTGAATGGGTAACTTCAAA
GAAGAGGGGCTTTTG

Sequence 1002

GTCCGACCACGCTCCGACGCACCAAAGGGCAAATACTCGGTAGCGACTCAGAGGGAAAGT
GGGGTCTCTCCTGGGAGAGCAGGAGGCTGCCAGAAAAGAACTCAGGTCAGGGGTGCATAG
GCGGCTGAGGAGTGCGGGACGGGCTGAGAGTTGGGGTGCTCCCCGCCGCGAGGTGGGT
CGCAGATCCCGCGGGCCGCATTGGCCCCGCTGCTGCGGGATGCCGAGGGGCTGCAGGAGC
TGGCACTGGCGCCGTGTACGAATGGCTGTACAGACGAGGACCTGGTGCCGGTGTGGCGC
GGAATCCGCAGCTGCGGGAGTGTGGCGTTGGGCGGCTGCGGGCAACTGAGTCGCCGGGC
GCTTGGGGCTTTGGCCGAGGGCTTGCCACGCCTGCAGCGCCTGT

Sequence 1003

CGCGTCCGCTTTNCCTTCTTGGTTCCACCTCAAACATCCCTTCCGAAGTGAGGCTTTCCC
TGACTGGGGAGCATAAAGTAGCATCTCTCACATNCCATACACCCCTACAACGAATCTATG
CAATGGCCCTGCTCTGCCATCGCCACCTGAAACCATCTCAATAAACACATTTTGGATAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAGG

Sequence 1004

ACGCGTCCGTTGGCTGCGAGGAGCGCCGAAAGGTCAGAGGAAGGAGCTGTGGGAAGCTC
GCAGCAGGTATCGGAGCTTAAGCCAGTGGATTTGGGGGCCCTGGGCTCCCTAGCCGGCTG
CGGTGTGAGAAATGGAGTGGGCAGGAAAGCAGCGGGACTTTTCAAGGCTCTGGGTTTGCAGA
GAGCCGAAATGACCATGACTGCCAACAAGAATTCCAGCATCACCCACGGAGCTGGTGGA
CTAAAGCCCCTCGGGGACTCTGAGCAGGTCTCAGTCAGTCTCTCCACCTCCAGTTCTCT
CCCCACCAAGGAGTCCCATCTACCCGCTCAGTGATAGTGAAACCTCAGCCTGGAGGTACC
CCAGCCACTCCAGCTCCCGGGGTGCTCCTTAAGGGACCGGCACCCCCCACT

Sequence 1005

NCCACGCGTCCGGCAGCGCTGCGACGGGACCGCGCGATTCTCTCCACGCATCTGGCCC
GCGTTCTGGGCCTCGGCACCGGATCCCGCGGGGGTGTGGACCCAGGGCCCACTCTCCC
CGGCGCGGCCAGGGCCCCCAGCGTGCGAGCGCCTAGGGGATGCCGAGCTGCTCAAGATG
AGGAGGTGCGCGGGGCCGGGGCGGAGCAGTCGCAGTTCCCCGCGTGTGAGCCCCACCCA
TCCCTGGCGCCAGCGCTTTCCCGACCACTCGGGTTTCGGCTATGCGGGAGCCGNGAGGAGG
AGGCTTGAGTCGTGGACCTGAGACCTCGGGAGGTCATGCTGTCTTTAAGTGGCT
TNGGGGAAAGTGAAAGAAAAACNCCNAAAATTGGAGGACTTTGCTACCAGGGACCTAACGG
CACCAGTGG

Sequence 1006

ACCACGCGTCCGGGAAAGCCCCGAAGTGCCACGGGACTTCTGTCTAAGGAAGAGCCTC
GTGAAGCTCCTCCACTGGGGAGTCAGTGGCCTTCGTTGTATCTGCCCCGCTTGTCCACCT
CCTAGAGTGAATCCCGCCTGGAGGCTGGGACACTAACCAAGAAGTGGCACATGGCATAT
CACGGGAGCAATGTTGCCGCTGTACGGAGAGTGCTGGACCGAGGGGAGCTGGGAGCAGGT
ACTGCCTCCATCTGANGCGTCTTTGAAGGGAGAACCTGGGGTAGGGTTTCGAGGAGCAG
GCGAGAACTGTGCACCTCCTCGGGAGGAGCAGCCCCCTCCTGTGCTGCTTTCCCCCTCCC
TTCAATATGCTGGGGGCGGAGACCCTGGCCTCAAAGTGCAATTCCGGGACCCCAAATCC
CAGCGGACGCACCAGGCTTAGGTGGGCGTCAAGTTGNTGTGTGCCCCCTGGCTTCTACA

TABLE 1

162/467

CCCCGGGACCCCTTCGG

Sequence 1007

TCGCCACGCGTCCGGAAAAATTTATGCCTTTTTATTCATAACCCAGCTGTGGACCACTGC
CTGAAAGGTTTGTACAGATGCATGCCACAGTAGATGTCCACATAATAAAATTCATAGTTA
CCAATGCAGTTTTGATATATCATTGGATTCTGTCTTTGAGTTGTAGGTTATTTCTTAGCT
GCATGTTTTAACTGAATTTGCATAGAGTTGTATGTTAATGTTTCAGTTAAGAGAAAAAC
TTAAGATACATGAGTCATTACATAATGGGTATGAAATCTTTATAATCACCCCTCCACCCT
CTATGGTGTGAGTACACATCACGTGTCATAGATACTTAAATGTAAATGTTAACACTTTT
CCTTCCTGCTGAGGATGTTTAGAGCCTAGTGCCAGACCCATTCAATTCCTTTTGATT

Sequence 1008

GCGTCCGGGCGNGCGGAGTTTTGTCCATAACGTGGGCAACCGCGCAGCTGGAGGATGGCCT
CACTCGGGCCTGCCGAGCTGGGGAGCAGGCGTCGGGGGCTGAGGCGGAGCCGGGCCCCG
CGGGGCCGCGCCGCCGCCCTCACCGTCTCTGCGGGCCCTGCTCCCCCTGCAGCGGG
AACCTCTCTACAACTGGCAGGCGACCAAGGCGTCGCTGAAGGAGCGCTTCGCCTTCCTCT
TCAACTCGGACTGCTGCGATGTGCGCTTCGTAAGTGGGCAAGTTGGCGNGCCGCCGCCG
CTGGGGGCCCGCAGCGCATCCCCGCCACCGCTTCGTGCTGGCGGCCGGCAGACGCCGTC
TTTG

Sequence 1009

GCNCCCCGCGTCCGTTAGAGCTCAGGAAGTTATTAGGTGCAGCCTCTGGAGCCATACTCA
CGCTGCAGTGCATAATGGGAAAATTAGGAGCATTAAAGAAATTTAGTAGTGTGTTGTA
AGGAAAATAAGCTACTTACTGAGATCTGTTTCTTCTATTGCATGTTTGCTTTTGAGGGAC
AGCTTCTGTCAAAAGTGAAATCATCACCAGAACTGGGCCTGTTAGGAAGAATAGGGTTTT
ATTTACTTTTTATGTCAATTAACCTCAACAAAAAGGCCACGCTGGCTGCTGTCATGCCAT
CTGGGTATGCATTAACATTAATGATGATCAGCCTTGAGGTTCTATTTATCTTGATTTGG
CTTTATAAAGTTTGTGAGAATGGTGTGAGGNGCCAGAAGTGCTAAGGAGAAAGAAGCTA
TGGGCCAAGTTAAAGAATTTGAATGCAAAGGCCAGGNATGGGAGTTTTTCATAA

Sequence 1010

CGCCNCGCGTCCGGTGAGCCCCAGCAAGGAGATCAAGATCGTGTCTGCCTGAGGAAGCAG
AGCCATGACAATCGGAAATCTACCAGCTCAATGTCCTGCATGTAGACTACCGGACCGTGA
GCAATCTGATTCTGACGGGCCCCACGGACGATTGTCATGGAAGTCATGGAGGAGTTAGAGT
GCTGAGCTCCTGGGCCTCCAGCCCTCCAGTGGCCTGTGGGTGAGGGAAGCCAGAATGAC
ACAAAGCAATGCAAAGACAAGATTGCCATGCAAATGGATGGTTTTGGACATACGAGTCTT
CTCCGCACATACATGTCTAAAGTTGAGTTTTATACACTGGAATGTGGAAGAACCCGGGTA
TCATATCTTTTTTAAAAAATGTCCAGTGTAGAAAACATTTGGGAAAC

Sequence 1011

ATTTTTCTAACATGGGTTTGAACGCTTATAACCAAGTTTTATAAACCCTTGAACACTGCA
GTGAGTTATCAAAGCCACTGCCTGCAAAGTGGATGATTTAAGATTTTACACGCATGAAAA
TGAGTGTGCCATCTCCTGACCAGTGCCTTTTGACTTAGGTACCCAGATGCCACTTGTGAG
CAGCAGGATACTTTTTACAACACGAAAGCATAATTATTTAGAAAGAGAGTAGAAGGG
CAGAATAGAATTCAACTTACAGAAGCACCGGAGTAGTGTTGTGGTTGGCTGTTATCTGTC
CCCCTGGGAGGAGGGACTGTTTTGCTCCCTTGTGTTTNGATGTTAAACAGTAGCTTAAAGG
CTTTCCCCCCCATACCAACTTACAGNCAAATGACAAAGAACCGGTGGNGGTTTTCAACAG
ATTCTACAAACATGCATTTTTCCCTTCCCACTAAATGGG

Sequence 1012

GTCACCNCGCGTCCGCTCGTCCTCCGTGGGCACTGATGTCACCGAGGGCCCTGCTCACCC
AGCCCCCAGACTAGGCTGTTCCATGCAAATGAGGAGGAGGAGCCAGAGAAGAAGGAGGT
ATCGGAGCTGCGCTCTGAGCTATGGGAGAAGGAAATGAAGCTTACAGACATCCGCTTGA
GGCCCTCAACTCTGCCACCAACTGGATCAGCTTCGGGAGACCATGCACAACATGCAGTT
GGAGGTGGACCTGCTGAAAGCAGAGAATGACCGACTGAAGGTAGCCCCAGGCCCTCATC
AGGCTCCACTCCAGGGCAGGTCCCTGGATCATCTGCATTATCTTCCCCACGCCGCTCCCT
AGGCCTGGCACTCACCCATTCTTCGGCCCCAGTCTTGACAGACACAGACCTGTACCCAT

TABLE 1

163/467

TGGATGGCATCAGTACTTTGTGGGTCCAAAGAGGGGAAGTGACCTTCGGGTGGGTGGTGA
AGG

Sequence 1013

CGCGTCCGAAGAAAATGGGATCCATGAAGAACAAGACCAAGAGCCACAGGATCTCTTTGC
AGGGGATGGTATGAATGCATATGTAGCCTACAAAGTTACAACACAGACAAGCTTACCATT
GTCTCAGAAGCAAACAGTTTTGCAGGTAAAAAGNAAAGATNTTAGTGACTTTCTTGGGT
CTTTATTGAGAAGCTTTCCNGAGNAAGCCACTCTCAGAAATTGGCTTCATATGTTCCCTC
CCGCCCCCGGAGTAAGNAGCCCTCATAGNGGGATTGACATAAAAGTTGAAAAGNTTGNGG
AACGGAAGAATTCTTTCTTCTGGCAGNAATTTCTTTGAAAAAACCNAGGGGGCCCCG
CTTTAGAAAAAGGGTACCCTTTT CAGGAGGGATTGTTAAAATTCANTCCTACCCCATGGT
TTAACAAGGGACTCCTTGACNGTTCAGTAAGTAGGTTTCTTTGNAAAAAGGAAAGGAA
GCTGCCACCGTGCCCGTNGGGGATACCCNAAGACAATTGANGTTGGGTGGCTTGNTC
CTTNTCTCAAAGGAATGGTTTTCAAANCAAAAGCCACCAAGATTGCCNGTCCANGCC
AAAAAAT

Sequence 1014

GTCGCCCCGCGTCCGCGGNCGCGTGGGGTGCTNGTCACCAGACTGCACCCTTGCCAGCAG
CTTCGCAGCTCTCGAAGTAANTTATCGCANGATGGCCGGCGCCTCACCTAGGAGAACCAG
GAAGGCAGGCCNCGCTAGAACGACGGNATTGAATTTTACTATTGNCAAAACAATCACATT
CAAATTCATTCCACTTAAACCTGAAAACATTGGACCACACAA

Sequence 1015

AGTCGACCACGCGTCCGGGCGGAGGGAGCGTGACTGCGCTGCGCAGGGCGCTAGGAGGCA
TTGTGCGCGCTCAGGCCCTTTTGTGAGAAGCAGACCAGCCTGGGGGCTGGCGGCAGGACA
CCTGTGTCTGCATGCTGAAGAAGATGGGTGAGGUCGTGGCCAGAGTAGCAAGGAAGGTCA
ACGAGACGGTGGAGAGCGGCTCTGACACTCTGGACCTGGCCGAGTGCAAGCTGGTCTCCT
TTCCCATTTGGCATCTACAAGTCCCTGCGGAATGCTCTGGCCAGATCCACCTCATACCC
TGGCTAACAACGAGCTTAAGTCCCTACCAGCAAGTTCATGACCACATTGAGTCAAGTCC
GAGAGCTCCACCTGGAGGGGAACTTCCTACACCGCCTCCCAGCGAGGGTCAGTGCCCTG
CAGCACCTCAAGGCCATTGACCTGTCCCGGAAACCAAGTTCCAAGGACTTTCCT

Sequence 1016

CGCGTCCGCTTTTCAAGTGAAGAAAAGGGAATTACACATNGAATCGACACATCAGTAATACC
GATACAGTGAAATGGGCCTCTAATAAGAAATTTNAGCGNGTTTTCTGATGTGCCATTTTTT
TTGTCTTTTTTAAAAATATACCATANTTATAAAANTGGNAAATANNTTTTTGNACCCAT
TTAAATTGACCCCTTANAGNACNCTTGCCGTNATGNTGAAANGCTAGACCTATNGAAGC
TGNCTTGANGATATNTGTTTTTTAAAAAATTTTTTACAACNTACTTGTGGAAAATA
TAATATGCACTATAAAATATGATCNTATATCCTATTATCTATNATCTAAAAACACTTCCT
TGGACNCATTTANACGTAAATTAATAATGGGTCTTTAANGAAGANTAATGGGGAGGCC
CTTTTTTAAAAACCTATGGNNCAATCTTTTTATGNCAAGGGGNGGACCATTTTATTA

Sequence 1017

GCGTNCGCTGCGCCCGTGGGACCGGTGAAGTTCTGGCGACCCGGTACAGAGGGGCCAGGT
GTAAGCATCTCTGAAGAGAGACAAAGTCTGGCTGAAACTCTGGGACAACGGTTGTTTAC
AACCCTTATGCTGCCCTTTCCATAGAGCAGCAGAGGCAGAAGCTGCCGGTATTCAAGCTT
AGGAATCATATTTTATACTTGATAGAAAATTATCAGACAGTGGTGATTGTTGGTGAACA
GGATGTGGGAAGAGCACACAGATTCTCAGTACCTTGACAAGCCGGCTGGACAGCTGAA
GGAAGAGTGGTAGGAGTGACCCAGCCTCGAAGAGTGGCTGCTGTTACACATGATCTTTCT
TNCCAAAGGTTGCAGGGAGAGTAGCTGAAGAAAGGGTGCAGTGCTGGGCCACCAGGTGG
GCTACTGCATCCGCT

Sequence 1018

AGTCGCCCCGCGTCCGGTGGGAATCTTCTNACTTCTTGATCCATCTGGGAGAGAAGACGT
ACCATTATGTGCCCGAATTCGAAAAGTGCCATAGCAGCTACCATCATCTATGCCTATG
CCTGGCTGGTTCCTCTTGCACTCTGGGGTTTCTCATGTGGAGAAACAGCAAAGTTATGA

TABLE 1
164/467

ACATCGTCTCCTATTCATTTCTGGAGATTGTGTGTGTCTATGGATATTCCTCTTCATTT
ATATCCCCACCGCAATACTGTGGATTATCCCCAGAAAGCTGTTGTTGGATTCTAGT

Sequence 1019

GGAGTCGCCACGCGTCCGGTGGCACGATCTTGGCCCACTGCAAGCTCCGCTCCAGGTT
CACGCTATTCTCCCGCCTCGGGAGCTGGGACAACAGGTGCCCGCCACCACGCTCGGCTAA
TTTTTGTATTTTAGTACAGACGGAGTTTACCCTGTTGGCCAGGATGGTCTCGATCTC
CTGACCTCGTGATGCACCTGCCTTGACCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCA
CTGCGCCCGGCCAATAATTTTTTAGTTTAAAGTTTCAATTTTGTCCCGCTGATGAAAGTT
ACAGCAGCTGCCCAGTGCCTCTGTCCACACCCACCTCCCTGGTGTACTTGCCCCCTACAG
CAGCAGCCAGATCCTCCCTGGATTAATTTGCAACTGGTGCCCTAACCCAAAACCTGA
GAAAAAATTCTCTATCACATCCACTCTTCTGGCATTGTAGAATCTC

Sequence 1020

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GAAGCAAGCAACTGTATTTCTTGTCTCACCTAAGCATTACTGGAGGATAAGCCACATCA
GTCTACAAAGAGGTTTTATACAAACATAATAAGATGTAAATGGACCAAAAGTTGAAAG
CACATTCTTGCAAGTAAGCACCTGTTACTCTCCAAGCAACCATGGGTTTACCATATTTGG
GGATTTTTTGAACACTTAGNCACTTTCTTGCTCCNAAGGGGACNTTTACAAAAAGTGNA
NACATTTTTGTANTGTNNCCCGTTATTAATAAAGCTAACNTTTTGAACCTNCTTGTTTT
CAAAAGGGCTTGNTTTTTGGACAAATTCAAAAATGGAAAAATGGATTTTCCACCGTTT
TAAGCCTCAATTTAAGCCCCAAGGTTCCCAAAAAATTTTTAANGAAAAAGTTATTCGG
GTATTAGGTNGNCCTGGGTAAAAAACCAAGAAANAAACCATTNAAAACAAAGCCCATT
CAAAATTTCTTNTGAAAAAAA

Sequence 1021

CAGGGAGTCGACCCCGCGTCCGAGCATCTTGGGGAATTTATATTCCTTTGTGAGAAATGT
TTTGATCATAAGCCTAGAATGATAAGTAAAGAAATAAGATAATTCTACTGCTTGTCT
CACCCGGTTACAAAGCATGAGTTTGAAGCAATAAGTGCCTTGTCACATTTTGCAGAGAG
ACAACAGTAAATACTCCAAATACGTTCTTTTCATGGTCAGTGTGAGCTTGATTTATGT
CGACATGAAGTTTCGGTATGGCTGTTTAAAGGGAAGATGAGTGCTTTTATGCCATAGTCTT
GTGGAAGTGAAGTCTGGATAATGCAAAATGAAACAGGTATCTCACATGATGCTATTGCT
CAAGAGTCTAAACGATATTGGCAGAATTTGGAAGCAAATGTACCTGGAGCGCAGGTCTTG
GTAATCAAATAATGC

Sequence 1022

CNCGCGTCCGCAAAGCAAACGACAGCTCAGGGGGCTCCAAAGACCTCATTTCATAGCAGCA
AAAGGAACTCAGGTAGTCAAAATATCAGTACACATGGGACGTGTCAGTTTAAACAGGAG
CCCCGGAAGAGTCATAGTCCAGCAGTGACACATCAAACTAGCAGCTGAAAGGGACTTG
AATGTGACCATCAGTCTTAGTACTGATAGACCAAAGCAGCGATCACAGGCAGTAGCAAAC
GAGAGGGCACACCCTGCCAGCACAGCAGTGNCGAAGTCTGGGGAAGCCATGGCCTTAAAC
AAAATAAGACTCAGAGCAAAGAAGTCAATGCAAATAAACACAAAGCCAATACGAGTCTT
CCTTTTCCTAAGTTCACTGTCAATTCAAATCGCTTAAGGAAGCAATCTATTAATGAGACA
CCTTTGGGAAGTTTGCAAAGGATGATGGAGCTAGAGGGGGCTCATGGGG

Sequence 1023

CNCGCGTCCGGCCAACCGCCGAGGAGCAGTGCCCTATTCAGCACAGTGCGCCAGGGCCAC
TGGCAGATTGTTGATCTTTTACTCACCCATGGAGCTGATGTCAACATGGCAGACAAGCAG
GGCCGCACTCCCTGATGATGGCTGCTTCCGAAGGCCATCTAGGAACCGTGACTTTCTG
CTTGACAAGGTGCCTCCATTGCTCTTATGGACAAAGAAGGATTGACAGCCCTCAGCTGG
GCTTGTGTAAGGGCCATCTCTCAGTAGTACGTTCTCTGGTGGATAACGGAGCTGCCACA
GACCATGTCTGACAAGAATGGCCGTACCCCATGGATCTGGCAGCTTTCTATGGCGATGCT
GAGGTGGTCCAGTTCCTGGTAGATCATGGGGCCATGATCGAGCACGTTGACTACAGTGGA
ATGCGCCCTTTGGATAGGGCAGTGGGGTG

Sequence 1024

GTGCCCCGCGTCCGAGAAGTCAGGGAGTGGAGGTTCTATAAGGAATTAACAGCTGAGGA

TABLE 1
165/467

CGGAAGGGTTTGTTCCTGTTTGAACCTAACGCAAGTGGAAAAGAATACTCAGAATGTA
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TTTCATCGCATCAGAATCACAGCAGACGTGGAAGATTCCATGTGGTGGGGAATAAAGAAA
TAACTTTATGCTCTCCTGAAAAACAGCGGGAGCCTATGTGTGTGTGCGACACTGTAATCT
CAAGGAGATTCACTCAGAGCTGTCTCAGTCCAACCTCCTGCATGACCAGATCTTCCCTTAG
CATCTTTTCTGTGATGAAATATTATCTTGTGTTAGAGTTAGGAATAGGAACTAACCTGTA
GGAGCATGTCCCCAAATGGACATTTGAATGGACTAACAAAAACAACCTGGAAAGACTGAAT
TTCCGACACAAAGGAATGATGGGATCAAAAAGAAAGC

Sequence 1025

GGAGTCGACCCACGCGTCCGGTTCGACAGCCTCCGCCACATCCTCCACCTCTCTTGGTCCA
GCGAGCGTTGCCGGGCCAGGGTCAAGCGGAGGGCTCCGACGGCGCGGACGGAGCGAAGCG
CCGAGCCATGGCGCACCAACGGGCATNCACGCCACGGGAAGAAGCTGAAGGAATTCCTT
GCCAAGGCACGGGCTGGCTCTGTGCGGCTCATCAAGGTTGTGATTNGAGGACCGAGCAGT
NTCGTGCTGGGTGCNCTTCGCAAGGGAGCCAGNTAAGGCNCGCTNNGGGGATCAGGGACT
ATTGAACAGGNGGCCCGTGGCTTGCNACCTGCNTGGGACCGCCCCAGGCAGGCCCTGCN
TACCTGGCTCTACCGCGCTTCGACTNACAAGAAATGGCTCAGGGGNCCTTTCGAAATGGGG
CTTCTTTCTTCGCCCTTGTTCCGCNCTNGAATAAACCTCCCCCGTGGCGGCTTGAA
AGANTGCCTGTACCGCCGGGNCATGCNNGGCCCCACAAGTGGAAAAAGGGAAG

Sequence 1026

AGGGAGTCGACCCACGCGTCCGCTCCCGCCAGGCGCTTCTCGGACGCCTTGCCAGCGG
GCCGCCCGACCCCTGCACCATGGACCCCGCTCGCCCCCTGGGGCTGGNGATTCTGCTGC
TTTTCTGACGGAGGCTGCACTGGGCGATGCTGCTCAGGAGCCAACAGGAAATTAACCGC
GGAGATCTGTTCTCCTGCCCTAGGACTACGGACCCTGCCGGGCCCTACNTTCTCCGTTT
ACNTACTACGACAGGGTACACCGCAGTAGCNTGCTCGCCAGTNTCCTGTTACNGGNGGGC
CTGCNGAGGGGGCAACCGCCCAACCAATTTTCTTACACCCTGGGGNAGGGCTTGCCGAAC
GAATGCCTTGCTTGGGAGGGATTAGNAAAAAAGGTTTCCCCAAAAGTTTGCCCGGCTGG
CAAGGATGGAAGTGTTGGGACCGAACCCAGGATGTGAAGGGGGGTTCCACCAGAAAAAA
AGGTTATTTTCTTTAATCTTAAAGTTTCCANTGGAACATGGTNGAAAAAAATTTCTT
TTTTNCGGGTGGGGGTGGTTCACCCGGGAAC

Sequence 1027

CGTCCGTAGTCTCTCTCGTGGCCCCGAAAAAAGAAAGAAGGTTGGGGCCAGTCACC
CCCACATCCCTTTATGGAGGCTTCCAGATCATGGATCCTGTCACGCGCATCCCGGTGAAG
AGAGTCCACCAACAGGCTTTGTATGGGGTCTCGCTCTGTTGCCAGGCTGGAGTGCAAGT
GTTGATATGGCTCACTGCAGCCTCAGCCTCCCTGGGATCAAGTGATCCTNTCACTCAG
CCTCCCAAGTGGCAGGGACCGCAGGAAGGCCTGGACGACGGCCCGGACTTCCTCTCAGAA
GAGGACCGCGGACTTAAAGCAATAAA

Sequence 1028

CGCGTCCAACCCCTTCTCAGCCTGTCTGGGAGCAGAGGGCAGTGGCGGTGGCCCCAAAGG
AGGGACCGCTGACAAAGGAGCCTCAGCCAACCAGGAAAAAGGCTAAATCCACCCTTACCC
CTCCTGACCCOCCCAAGTGGAGGGAACAGATCCTGGCCTGAGGGGTCTAGCCTGGAGCA
GGCGCCTGCGCCAGACCCTGGAGAGCCTTGACCCAGAGCCTGTGCTGAGGTCCAGGGAG
TGTGGAGAGCTCCTGGTGTGAGGACTGAGACTGACAGGGGAGCCCCCTCCATCTGGCCC
CCTTCCCTTTCCGCACTGTCCGCTTTGTGAGGCTCAGAGGAAGGACAGTCTGCAAGCCCG
CCTAGGAGGTCCATCCCCAGCAAATGTTTTGGAGGTCCCCCAGAGAGCAAAGTGGGCCA
TGGCAAGAAGTAGGGGGTGGTTGGACCTGTCACATGAAATGGATCAACACTTGAATGGG
GA

Sequence 1029

CGTCCGGAGAAGATGGGCCTCCCGGGCTCAGACTCACAGAAAGAGCTGGCCTGACCACCA
GGCAGCTCACTGGCACTGCTGACCCATCCCAGAAACACAATCTCAGGGACCCGAGCAGCT
CCAAGGACGAGAGGATACAGCAGACACAACCTAATAGAGAGGGCGCCTGCAGCCTTAACC
TCCACGGCCTTCGATACTTATGCAAGCCTGGTGTGCTCCTGCTCAGAGTCATCCTGC

TABLE 1
166/467

GCTCATGCCTTTTCCCGAATGGGTTACCTCTGGCAGTTGCCGCTTCAGTCTTGGCCTTA
GCCTCATCTTGAAGTGGGTAGCTGGCGGGAGAGGGTGGGCTGCGCCCCCTGCTGGCCCTG
AGGCTGCAGAGTTGGGAGCAGGACACCTCACCTGAGTTTCATTTTTTTTCATGTCCAAAC
CATGCACATACTATAGTCCAGAATCAAAGCACTTTTGAAAA

Sequence 1030

CCCCCCGCTTTTTNNANNCNCGGGGGGTGNGGCAAACTTTTTCTAGAAATTNGCGCC
ATGTTGAAACNNTNTNCAGCANCCCGGCTGCACAGGGNGTAGCCCANCTCCAGGTCC
ACGGAGTGGTGTGGACCTCCACCTCACAGCTGCCTCTGGCAGCCAAGCCTCTTTTCGCC
CGGCCCCAGCCCCTCTGGTTGATAAACGGGTGGGCCTCCTCAGCAGCGTGGCTGCCTTT
ACCTTGATTTCCCCAGGGCTCTCGGCAACATCGATAAACCAAGCCTCGCCACCAGCTGG
GCCCTCCCCACCCAGTCTGCCAGGCTGGGAGCTGGAGCTTGCTGAGTCTTGAATGCCCT
TCTAGATGGCTTCTAGAGGCTCTCCTGGCAAGAGAGGGTCCCAAGGGGAGCCCTGCAA
AGCAAAGGCTCCTTGTCTGGGGCGGGATAGAGAATCTCGCCTCTGTCTGGTGTACCT
ACTGGGGGCACAGGAACAATTCCTCAAGGAGACAGTGGCATGGAGCTTTGAAAGACGAA
GTANGTGTTAGCAAGGAAATAAGGAGGAACGGGGTTACGGGCAGAGGAGAAAGCACATG
CCAAGTCAGCAAAGAAAAGTAGAATTCGAAAAACTTTTTTA

Sequence 1031

GGCCAGAGCTACTACGCCGGCCGATGGCGAGGAGCCCGCCCCGGAGGCTGAGGCTCTGGC
CGCAGCCCGGGAGCGGAGCAGCCGTTCTTGAGCGGCCTGGAGCTGGTGAAGCAGGGTGC
CGAGGCGCGCGTGTTCGTGGCCGCTTCCAGGGCCGCGCGGCGGTGATCAAGCACCGCTT
CCCCAAGGGCTACCGGCACCCGGCGCTGGAGGCGCGGCTTGGCAGACGGCGGACGGTGCA
GGAGGCCCGGGCGCTCCTCCGCTGTGCGCCGCGCTGGAATATCTGCCCCAGTTGTCTTTT
TGTGGACTATGCTTCCAAGTCTTATATATGGAAGAAATTGAAGGCTCAGTGAAGTGTTCG
AGATTATATTCAGTCCACTATGGAGACTGAAAAACTCCCCAGGGTCTCTCCAAGTATAGC
CAAGACAATTGGGCAGGTTTTGGCTCGAATGCACGATGAAGACCTCATTATGGTGATCT
CACCACCTCCAACATGCTNCTGAAACCCCCCTGGAACAAGCTGAACATTGTGCTTATAGA
CT

Sequence 1032

TCGCCCCGCGTCCGCAATTTCTTTTGAATTCGATCACTTCTACATTCAGCTTGCCAC
ACTCTTTTTTGATGAAGTTGTGAAGCAGATGGTAGCTGCCTTTGAAAGAAGAGCATGTAA
GCTGTATGGTCCAGAAACAAATATACCTCGGGAGTTAATGCTTCATGAAGTCCATCACAC
ATAAAGGCAAAAAAGAACTGGTGCCACCTGCTTCTGACTTTAGTTTGTTCACTTTTAGGA
AGTATTTTCATGACATGTTTTCAGAAGCCAGAAAGCATTTGTTAAACGCAGCTTTGGTTA
TAAACCTGCACCATTTGAAAATTTGCACATAGAATATAGACTCACTTGTACATAGAATTAT
TTCTTCAAGTATAATTCAAATAATATGGACATTATCATGTTCTGCATTACAATAATGGG
ATGTCATCACCATTGCTAGAATACTGGCATGATTCTTCTGAGCAGAAGTTGAAACTGTAA
ATTTAAACCTTTTAATTATCACCTTACCT

Sequence 1033

NCGCGTCCGGCCTTTTGTTTCACTTGCCGGGCAACCGGCCCTGCTGGGGACTACAAGTC
CCGTAAGCCTCCGCGGCGGCACGTCTACCTACACTGTCCAGCCGGCTCCCTTTTTCCC
CCTCCCCGGGGGCCAAGGGCTCCGGCTGCTGCCTGGCGGCCAACGGGCCAGGTAGGATTT
CCGGGAGAGGCTGCTGTGGAGGCTGAGGAGGCGGCGGCGGAGATCTGGAATGAATTTTCT
ATCTGTGAAATTGTGAAGACGAAAAAGAAATTGTGCTAGTTTTGCTGTTGTAAGTCCAC
ATTGCAGAAAGTTACAATCACAGTGCACAAAACAGTATCTCACCTCCCTAACTGGTTAAT
AGTGGCATGGAAGATCCATTTGAGGAAGCAGACCAGCCCACTACAGAGCCAGGCATGGTC
CTGGACAGTGTGGAAGCAGGAGACACAACACCTTCTACCAAAAGGAAGAGCAAGTTCTNA
GGCTTTGGCAAGATCTTTAAGCCCTGGAATGGAGGAAAAAAGTAGTGATAAATTT
A

Sequence 1034

CGTTTTNNTTCTTCCCTTGGATNAATATTTTCTACTGAAAAGAAATGAAATCTCAGTTCC
ACTATGATAAAAGAAACGAATCACCAGTGTCTGTCTCAGTGCCCCCACTGCTCCTCCTATA

TABLE 1
167/467

CCAGCATTGACACTGGTAGCTGAGGAAGGGGACTGCTCAATTTCTAATGTGATCTATTCA
AGAAGCCACATATAAAAAGGCATTGAGGGCTCACTGTCCAGAGAATTGCTTTTGTAAATG
CTCCACAACGTATGGGCAAAAGTTTAAGGACTACTGCCTGATGTACCAGGAATCCTGAGT
TCTGTGAAAATCTGTTTCATTCCAAATCTGTTAAGCATTTCCAAACATCCAGAGAATGGTT
TCACTGTTGAGGGTGCATGTGGCAGAATCTGTCTCTCTCTGCACCTGTCTTCTGTTACCA
TCCCTGGACAGTGACAGATTTTAAGCCAGCCACCAGAATTCTTTTCGAGTTAACCATTTC
TTAGTTTCTGTAAA

Sequence 1035

GTCCGACCACGCGTCCGCTCTGACCGCCGCCGGCTTTCACCCACCTGCCCGGCTCATCACC
TCTGACTCCTGCGGGCCTTCCAGCCGGCGCTATCTCGCAGCCCCCGACCAGCTCGGCCCTG
CTGTCCGGGCATCTCTGCTGTCTCCGGCTGTAGGGCTACCTGCCTCCCTCCCGGGGGGTG
CACTGCGAGTCCGACTCTAGTGGGGGCAGCGCCTAGCGGACTCCCAAACCCGCTCAGGTC
CTGCCGGCCTCACCGGCACCGCCACCCTCCAGCCGGCCGCGGCTCTGCGCTTGCGCGCC
GGCAGCACACAGTGTTAGGGGCGCGCCCTCTGCTCTGGACATGCGCCGCGCTCG

Sequence 1036

GTCCGCCCGCGTCCGGGAAAATGCCGCAGTTTGTGCTTGAAACCTAAGAGCAATCCT
TGGTTTTGTTGCTACATTATTTTCCAGACCAACACATCTACCAAGTNGAATTTTATNNA
CTTTAATTTTATAATAAAGTTAGTAGAGTCACTCAACTTACAACTTTATTTATGNTGGC
TTTGGGCAAAAAAATCACTTATAAGGCAGCTCTAAATTTGCCTTGATAAGCTAAATAAAT
TACTTTTATAACTTACTAAAGCAGAACAAACAGTGAACTTTCTAAAATATTCTATNCTG
GAAATAGNGGACAGGGGGATCTTTATTTATAATNCTCATCAAGATGAGTGAGGTTGTTG
ACCAGGATATTTTTATGGTTTTTTTTAATTTTTCTCCAAAGNAATTATTTTAAATAGG
AATTCCCAAAAGNAATCAAGAAATTAGTTTTTCAAAAATAAATTTTTTCCAGNTNGATAA
AAAGGAAGGTNGTTTGTAATAATTAATCCATTATTTTACCACCTTAAAAAATTTGGGGGG
AATACCATTCTAAAGGGAACCTTTTAATTCCTTACCTAATTCANGNTAGGGGNGTCTTGG
CAATTTNGAATANTTTTCTNTTT

Sequence 1037

GCGTCCGAAAAATTTAGGTAATGTCATAAAATTTATTTTACCTTTCTCATTTTCTGAGA
AAATAAATGAAAAAAACCCTAGATATTGCTTTATTACCAACAGTGTGTAGGTTTTGTAC
ATATGGAAATTTGACACAAAAAATAGGGAATTTGTATAGAGAAGTTTCCCTCTTATAAA
AGGACTCCCATTTTGATTGTTGAAACTATAAAATGCATTTTACTTTACCATATCTTGAA
ATGACAAAATATCGCCCTTTGGAAAACTGACTCTTTGCACCGTTGTAATTTCCAGAGT
CTACCTCAGTTAACCAGGCCTTAGTTTTAGGCAAGGAATGAATTGAATTAATTTTCACT
TCAATCATTTTATGCCAGAATTTTGTCTTTTCTTTTAAAGGCACCATCCTTCCCTCCTTGG
CTGGNTGGCCCTTCCCTCCCATTTAACTTTTCTTTTTTAAATNCTTTGAAAAATTGGGT
TAAAAATATTTCCAATCCTTTTCTTTTCTCTAGCCAAAGTNGGTTTTGTNATTTNCN
AAATAAAAGGGCCCTCTGGTGGAAAANGGNGCTGGAAATTAACCTT

Sequence 1038

CGCCNCGCGTCCGCAAGACTTTGAAAAATNNGATCATGGTTCTTCTCAAATACCAGCAT
GTCTAGCATCTATCAGAATTGTGCAATGGAGGTTTTGATGTCCAGTTGTTACAGTGTA
AGCTTGTGGAGCTTTAGTTTATGATGAAGAAATTATGGCTGGATGGACAGCAGATGACTC
AAATTTGAATACAGCTTGTCATTCTGTAAAAGCAACTTCTTGCCTCTTCTCAATATAGA
ATTCAAAGATTTGAGAGGTTCTGCAAGCTTTTTCTGAAACCAAGTACCTCTGGTGACAG
TTTACAAAGTGGAAGCATTCCATTGGCAAATGAATCCTTGGAGCACAAACCTGTATCCAG
TTTAGCAGAACCTGACTTGATCACTTTATGGACTTCCCAAACATAACCAGGATCATAA
CTGAAGAAACAGGCTCTTGCAAGTGACCCAAAGTGATGAAATAAAGAGAGCCAGTGGGAGA
TGTCCAAACATTTGAAAATTTTCATCTGTGNCTTAATAGGTTTATC

Sequence 1039

TGANATTAGCATCACTTCGTCTACTAAGAATCTTAATAGATGTAAAAATATCTTTTAAAA
CATATGGTAGGATGGGTAAAAATTTGGCAATACTATCCAGGAAGTCACTAAGTACAGATGA
ACTGATTTAGTCCTAATTCCAAGAAAGTGATTCCACCTACTTGACTAGAAAATTTATACC

TABLE 1

168/467

TGGTAATAACTCCTTGTCCTTGAAGATTTTCAACTAAGGAAAACCTGTTTTTCAGCAGGAC
CTGATTATGCACTGCTATCTAGGTAGGGTCACTTATGGTTTTATAATATATTTAATTGGA
TTATAATATTCCTTTTTTCTTGCTCTTGGACAAAATCCTAGCTTTACTGTAATTTAAAA
AGATGAGTTTAAAATTTCAGGCTTTAAAAACATACCAAACATTGATAAAAATGAAATCTA
GATAAAAGTATTTTATCAATGTTTCAGTTGCCTGGATTCAATAACTGTATTATGGTTATGT
AAGGATAATATCTTAGGAAATCACATTATGGTATTAA

Sequence 1040

GTCGACCCCGCGTCCGGTAGCTTAGTTGAGTAGATAATCTTTGTTGTTTCCTCCTTGTA
ATATAAAGCCTTGGCTTCTGTGACATCATACTCTCCTAGATTTCCCCCTGTCAGTGTGG
CTTCTTCTCAGTCTCTGTCCATCCCTGGTGCTCCTGAAGGTTCTGTTCTCAGCCTTACAC
ACATTACCTGGGTGATCTCATTCTCTGCCATGACTTCACTTGCCATATATGTGCTGATTT
TCCCCAAATTCCTATTTCTCCCGACCTTTACATCTATTTTATTTGCAGGTCATATATCTA
ATAAGGAATTGATATCCAGTGACATGTAGAATCCTGTAATTCAATACAGAAACCAAAC
AGTCCAATTAATAATGGAGAAGAGATTTGAATGAACATTTTCTAAAGAACATCTCAAG
CTCAAGATTTCCAGATAACTTTTCTTCTCAAATCTGCTTCTGTGTTTCCTCATCTG
TAGGTGGCACAGCATACATCTGATTTCCCAAGCCAGAAACCTCATAGTTATTCTTGACTC
CAGGAAGAAATATTATTGAGTTTTTAAAAACTC

Sequence 1041

CGACCCCGCGTCCGTGCTGAACTGAGCTCAGGTGTGTTTTCTTCCAAGCTTTCTAGCAA
GGTTTCTACTTAAATCACCTGTGTGCAAGCCCAAAGGACATTTCTATCTATTCTAAGCAG
AAAGGCTGTTTTGTTCAATTACAGTGAGTGCTGTTTCATCTCATGGAGTGGGAGGAGCACTA
AACCAGGAGACAGAGGACATGGATTTGGTTTCCAGCTTAACCAGTTAGGACTCTGTCTC
TGCATTCTGGAACCATGATGCCTGCCTGCCTGCCTCACAGGGCTGTTGTGAGGACCAGAT
GAGATGATGTATGTTCACTTTTTGGAATCTCTAATTTAAAGTCTTAATATTTTGTCTTC
TGAGTGTGAGGGGATAAACCTGGATGTAGACTATTAAGCAGCATAGGAGAAAAGAACAAT
AGAATCTAATGGACTGGGTTTGCAATCTCTCTCTAATGCACTGCTTCAGACAAAGTGAA
ATCCAAAGGTGTGAAAAAGTATAGCTGCAAAATTGAAAAATGTGTTTCAAGAGT

Sequence 1042

AGTCGACCAACGCGTCCGCTCTGACCGCCGCGGCTTTACCACCTGCCGGGCTCATCACC
TCTGACTCCTGCGGGCCTTCCAGCCGGCGCTATCTCGCAGCCCCCGACCAGCTCGGCCTG
CTGTGCGGCATCTCTGCTGCTCCTCCGGCTGTAGGGCTACCTGCTCCCTCCCGGGGGGTGC
ACTGCGAGTCCGACTCTAGTGGGGGCAGCGCCTAGCGGACTCCCAAACCCGCTCAGGTCC
TGCCGGCCTCACCGGCACCGCCACCCCTCCAGCCGGCCGCGGCTCTGCGCTTGCGCGCCG
GCAGCACACAAGTGTTAGGGGCGCGCCCTCTGCTCTGGACATGCGCGCCGTGCGAGCGT
CTCTGGGACCGGAAGTGCGGGCGAGCGCGGNTCCCCGGGTCTGACAGGAGCAAGCTGTGG
GCACCGNGGCGGTAGTTGGAGGCGGNAGAGGGTNCGTAGCCGNGCCGNCCTGCCCGNCATG
GGCCTNC

Sequence 1043

AGTCGACCCCGCGTCCGCAGGGGCGTGTTGGCCCCGCACAGATTGAGCCGAGTTGTCGCC
CCGCTGGGAGAAAGTGACCTCCTGCGCCTGAAAAGAAATTTCAATTTCAATATAGGTGACT
ATGCAGCCTGCAATTCAGATATGGTTTGGAGAAGATCTGCCTCTAAGTCCTCGGAGTCCT
CTGACTCCCAGACACGGACAGGATTGGCTAATGTTTGTGACGTACGATGAGTGGATAGCT
GTGAGGCATGAAGCCACTTTGTTGCCATGCAAGAAGATCTGTCAATCTGGTTATCTGGT
TTATTAGGTATTAAGTTAAGGCAGAAAAATTATTGGAAGAACTTGATAATGGAGTACTA
TTATGTCAACTGATTGATGTTCTTCAAACATGGTGAAAACATGCAACTCTGAAGAATCA
GGGAATTTTCCAATGAGAAAAGTGCCCTGTAAGAAAAGATGCTGCATCAGGTTTCATTCTTT
GCTCGGGACAATACCCGCAAACTTCCTTCACTGGTGTAGGGACATTGGGGTTGATGAAAC
TTA

Sequence 1044

ACGCGTCCGCCCACGCGTCCGGAGTCCTCCTCCCCGGGTGCCTGCCCGCAGCCCGCTCGG
CCCAGAGGGTGGGCGCGGGGCTGCCTTACCGGCTGGCGGCTGTAACCTCAGCGACCTTGG

TABLE 1

169/467

CCCGAAGGCTCTAGCAAGGACCCACCGACCCAGCCGCGGCGGCCGGACTTTGCCCGGTG
TGTGGGGCGGAGCGGACTGCGTGTCCGCGGACGGGCAGCGAAGATGTTAGCCTTCGCTGC
AGGACCGTGGTGAAGCCTCTGGGCTTCCTGAAGCCCTTCTCCTTGATGAAGGCTTCCAGC
CCGCTTCAAGGCACACCAGGATGCACTTGCCACGGNTTGCCGTGCCCCCTNTTCAGCAGT
CCCT

Sequence 1045

GTCCGCAGAATTGACNAATTCAGGAGGTGTAAAAATAAACAGTGTTCTTCTCTACCCC
AAAGCCACTACTGACCAAGGTCTCTTCAGTGCCTCGCTCCCTCTCTGGCTAAGGCATGC
ATTAGCCACTACACAAGTCATTAGTGAAAGTGGTCTTTTATGCCTCCAGCAGACAGACA
TCAAGGATGAGTTAACCAGGAGACTACTCCTGTNACTGTGGAGCTCTGGAAGGCTTGGTG
GGAGTGAATTTGCCACACCTTACAATTGTGGCAGGATCCAGAAGAGCCTGTCTTTTAT
ATCCATTCTTGATGTCATTGGCCTTTNCCACCGATTTCATTACGGTGCCACGCANTCAT
G

Sequence 1046

ACCACGCGTCCGCCCACGCGTCCGGGCGGGGGCATGGACTACTGACCCATGCGGGGCAGC
GTCCCTGTGACCTGGCCGATGAGGAAGTACTGAGCCTGTTGGAGGAACTGGCCCGGAAAC
AGGAGGACCTTCGGAACCAAAAAGAAGCTTCCAGAGCCGGGGCCAGAGCCCCAAGCGCC
CTCTAGCAGCAAACACAGAAGGAGCTCTGTGTGTCGTCTGAGCAGTCGCGAGAAGATTT
CCTCCAGGACTTGTCCAAGGAGCGCCGGCCTGGTGGGGCTGGGGGGCCCCCATCCAGGA
CGAGGATGAGGGGGAAGAAGGTCCCACCGAACCACCCCTGCAGAACCAGAACCTCAA
TGGCGTCTCCTCCCCGCCGACCCAGCCCTAAGAGTCCCGTGCAGCTTGAAGAGGCCCC
CTTCTCCAGGCGCTTTGGCCTCCTGAAGACAGGGAGTTCTGGTGCCCTGGGTCCCCCTGA
AAGGCGGACAGCGGAGGGAGCCCTGGGGCTGGGCTTGCAACGCTCGGCTTTCTTCTCCT
GGCTGGAAGGGACCTTCACTTANGCCAAGGAGCTTCGNTTGGCAGAATTACCCCGACCC
CCTTCCCGAAGCTTGCCGGAGCCCTTNTGTCTTGTCTGAGGGTCACCAAGCCTTCTTCC
TTTGCTTGGGAGAACTTCTTGNCTTNCCTTCAGGAATTCNGAGCCTGGATTCCCAGCG
AANCCNAACGTTCCCACAGGCTTTCACGGGGC

Sequence 1047

TGTCGACCCACGCGTCCGCTCCCGCCGAGGCCTCCTGCACCACCTAGAGCCCCACCCCC
GACCCACCCCGGGAGGGCAGAGCCAGAAGAAGGCTCATTAGACCTGGGGGACCCAAAGG
GTCTGGCCTCTTTGGGCAGCCCCAGAGATGAGGGGTGAGCAGAGGAGAGCTCTGGGGTTG
GGGATGGGTAGGGACGCAAGCTTGAGTTCTAGCCCTTGCTCTCATTACAGCTGTTGTGTG
ACCCTGGGTAAGACCCTTCTTGTGTTGACCCTCAGCTTTCCTATCTGTTAATGGTGGCT
TTGGCCAAGGCAATCCACAAACGTCAAATTCCTTCCCTATCAGTACACACACCGATGC
ACACACACTCTCTCTTCTCTCTCTCTCTCTCTCACACACACACACACACACACAC
ACACACACACACTAGTTAGTGCCTTGGATGAGGCGGGGCAGTGTGTATATGGACCCCT
GGACTTGCTACCTTCAGGGTTCATACTCGTCCCTCCCTCCTGGCTCTGCTGTCTGGAG
TCTGGCAAGCGGG

Sequence 1048

CGCGTCCGCCACGCGTCCGCCGNCCGCCGCTGCCTGGGCGGGGCCGAGGATGCGGCGC
AGCGCCTCGGCGGCCAGGCTTGCTCCCTCCGGCACGCTGCTAACTTCCCCCGGTACGT
CCCCGTTCCGCCGCCGGGCCGCCCGTCTCCCGCGCCCTACGGTCGGGTCTCCAGGAG
CGCCAGGCGCTGNCGCCGTGTGCCNTCCGCCGNTCGCCCGCGCGCCCGCGCTNCCCGCCT
GCGCCAGCGCCCCGCGCCCGCGCCAGTCTCGGGCGGTGCTGCTGCCCCCTCTGCCTCG
TGGCCGACCTGCTGNTGGCCGCCGGGCCGGGCGGCGGAGCCTGGG

Sequence 1049

NCCACGCGTCCGCAAGGCGCTACGTTTATTGCCTCGTCTTATTCACTGACCTTTGTAATG
ATACACAGTGAATCTTTTACAAAGAGAAATGCAGTGTAGTATGCAGAGCTGCTGTTT
TAATGCCTATGCATTTACTCTTTCCTGATTTAGGCAGAGGTGGCATTTTCTTTATTGCAT
TTCTCTATTTTTTAATGTACCCTACCTCAGTATTCTTTGTAAGTTGGTGAAGTTGCA
TCTGTGGCCTTGAATATTTTATTATCACATGTGGCATAACAGTATCCACACTTTTATGTT

TABLE 1
170/467

CTTTATTTTTTTTTTTTTATTTTGAGCAATTCTCCTGCCTCAGCCTCCCAAATAGCTGGG
ATTACAGGGTGCATGCCACCACACCCAGCTAATT

Sequence 1050

CGCCCCGCGTCCGGGATGGACAAGACAAATCTTGTAAAAAAATTACAAGTAATTTTT
ATAGAAGCTCTGCCCTGAGGGAGGGGGAGCGTGACTTCTCACTCCTTCAGTGTGGGCTGC
ACAAGTGACTTCCTTCCATATGGGATCGTTATAACAAAAGACTGTAACAAGGGCTATGGG
AGTTATAAGACAGGAATTGTGGACAAAACCAGTGTATATCATAACATCACACCTTGTA
TGTTGGCAGTACAGTCACTGACCTTGATAAATGTTGATGACATGTTGAGTAAAGGAATG
AGAGAAAGAGGATTGTTTATCTCTGTTTTATCCTTCTCAGAGAACTTAGAGTAAACAAG
GTGTGTTATCAGCCATGCTGATGCCCTTGGTAAACTATTGTGTGANATNGGGTGGTTTGA
ATTGGTCAAGTAGAACTGGGGCTGCCAGGCGCAGCCGGTAAGCATTTCATGTGAGCCT
TAGGGAANAAGTGCATTTTGGTAGGAGCCATCAAAAATAGCTTCTTGATATTTCAATAAA
AG

Sequence 1051

GACCACGCGTCCGGGGCTCCTGGGTGTGCCGCGGCCTCTGGCGCGCAGCGACTCAGAGA
ACGTCTACGAGGTCATCCAGGACTTGACGTCCCGCCGCGGGAGGAGAGCGCAGAGCAGG
TGGACGACCCACCGAGCCCGTGTACGCGAACATAGAGAGGCAGCCCCGGGCCACTTCAC
CGGGCGCCGCTGCAGCCCCCTTCCAGCCCGGTGTGGGAGACGCACACGGACGCGGGCA
CCGGGCGCCCCCTACTACTACAACCCAGACACGGGAGTTACCACCTGGGAGTCGCCCTTG
AGGCTGCCGAGGGTGCCGTGAGCCAGCCACCTCCCTGCCTCGGTGGACAGCCACGTGA
GCCTTGAGACCGAGTGGGGCCAGTACTGGGATGAGGAGAGCCGCAGGGTGTCTTCTACA
ACCCGCTGACGGGCGAGACGGCCTGGGAGGACGAGGCCGAGAACGAGCCCGAGGAGGAGT
TGGAGATGCAGCCGGGCCTGAAGCCCTGGCAGCCCAGGGGGACCCGNGGNCCC

Sequence 1052

CGGCTTTGCCGCAACATGCTCAATTCCCGATCATCGCTCAAAGTGCTAAATTTTCAGGAG
TGAAAAGAAAAAGAGGAAGGAAGAAACCCCTCTCAGGCAATCATGTACAGCCACCCGAAA
CAATGAAATGTAATACATTCATAAGACAAGTGAAAGAAGAGCATGGCAGACACACAGATG
CAACTGTGAAAGTTCCTTTTCTTAAGAAATGCAAGGAAGCAGGACTTCTTAATTACTTAC
TTGAAGAAATATTAGACAAAGTTCATTCAATTCAGAAAACTCATGGATGAGACTACTT
CAGAATCAGACTATGAAGAAATCGGGAGTGCACTTTTTGAAGTGTAGATTGTTTCAAGACA
CATTTGTAAATTTTCAAGCAGCAATAGAGAAAAAATTCATGCATCTCAACAAAGGTGGC
AGCAGTTGAAGGAAGAGATTGAGCTACTTCAGGACTTAAACAAACCTTGTGCTCTTTTC
AAGAAAATAGGAGATCTTATGTCAAGTCTACATCAATATCATCCCTGTCTTATTAGGGA
TTACCGTTTCCTAAGCCAAGAGTCATGTCAAATTGCAATCAGGC

Sequence 1053

GACCCCGCGTCCGGGAGGTTGAACGTTCAAGGCTAAGACCGTTACTGAATTGGTTACTAAG
AAGAAGCCAAAGGCTGAAGGCTATGCTGAGGGTGACCTCACTCTCTATCACCGTACCTCA
GTCACTGACTTCCTCCGAGCTGCCAACCCCTGTTGACTTCCTCTCCAAGGCCAGCGAAATC
ATGGTAGATGATGAAGAGTTGGCACAGCATCCAGCTACCACTGAGGACATACGGGTGTGC
TGTCAGGACATCAGAGTGTTGGGGCGCAAGGAGCTCAGGTGCTACTAACTGGAGAACA
AACTTCGGCGATATGTGGCCAAGAAGCTGAAAGAACAAGCAAAGGCACTGGACATCAGC
CTCAGCTCTGGAGAGGAAGATGAAGGTGATGAGGAGGACTCAACAGCTGGAACCAAAAG
CAGCCCTCTAAGGAGGAGGAGGAAGAGGAGGAGGAGGAACAACCTGAACCAGACCTTGGCA
GAAATGAAGGCCCAAGGANGTGGCGGAATTGAAGAGGA

Sequence 1054

GTCGACCCCGCTCCGCAAGGACCATGTTGTACCACAGCCTCTGCTGAGCTGAGGGACAC
ATGTCTTGGTGAAGACCTGCACCCCTGGAACCTCCACCATCATCAACTGNAGTCTC
ATTTGCAGTGGAGAAAAGAACCCGACGTCCACAGCCAGATATACCCAGCTCCATGCC
AGCCCTTCATGTTTACCTTTTGCTTTGTTAATTACATGTCAGACTCTAGAGGGCCTCCA
GACTAATAGGAAGCATTCTGTAAACCAACCTGCCACCCACTGATTCAGAAATGGAAATCA
CATTCCACAATCTATGGCTTCCACCAGCTAGCCAGGAAATACTTGAAATCAGCATTCT

[illegible]

CCACGCGTCCGCTGTTCCCGACAGCATGGATTAGCTTCCGTGTTCTGAAGTTGTTCTTT
CATGGTGTCTGACACCGAGGGCCGTTGTTGTCCTCATCAGGCGGGATTGGATGGAGTCTTG
GTGTTTTGCCTTCTCAGGGACCAAAAATGTATCATTGACTCCTTAACAGTGACCTTCCTC
CCAAGGACATATCCGTGTTCATTTTTCATAGGTTTTACTCATATTCATAGGTAGATTCTG
TTAATGTGAGTTGGAAAGAAAAGACCAATTTGTACACCAGTCAACCACAAGACAGTTTA
TCATATAAAATACCTCAATTTTTTGATTCTCATTTCCACCTACAATTGTACTGGTGA
TGAATTTTAAGGGTCTG

TCGCCNCGCGTCCGGGCAAGGAAGGCTCTGTTAATTTATAGCTGTTTAGAGGGGAAAGCA
GTGCAGACCACTTATTAAGCCCGCTGAGGACTAGCTTTCTGTCTTTCATACATTTGGGAA
AGATAGGAATGACTGTTTCAAAGAAGAGAGGTGCACATAATTTATGCAGGCAAGTATGAT
ACTTATTTCA TTGGTTTTGTGAGTCATATATACATATATATATACACATATATATA
TGACTTGAAAATTAAGATTTAATACTTTAATGTTTTAAGTGTGGGGGGTTTGGGAAGGAA
GGAATGTAATATNTGGGATTTAGCCTTAGGCTTTAAGTTTTAGGCTGGCAAAGAAATGT
TATTCAGTGGGTTTGAGGTTTGGACTACTTTCTTCAAACCTTAGAGAATTATAACAGGATG
GTGTTTACCTTTGTTACCTGGGATGTCCCAAGACTCTAGCTTCTTCTATCAAGTGGTT
GGGTCTGATAGAAGAGGTAAAAATTGCTCTTGAAAATNNTCTACAATTATGCAGGTTCTT
TGATAAAATTTTCTGGTTAAATCC

CCNCGCGTCCGCCNCGCGTCCGCCAGGCCTGGGCGGGGCCGTGACGGCGGCGCTAGGAC
CCGGCGGGCCGCGGGTGC GGCGAGGCCTGGGCGGCCTGAGGAGCGGGACCCGCGCTC
GGCTCCCGGCGCCATGTGAGGGGGCTCGGGGGCCGCGGGGGGCCGGGCGCTCCCCGCCG
AGGTGTGAACCCACATCCCTGCCCCAGGGCCACCTGCAGGACGCCGACACCTACCCCTC
AGCAGACGCCGGAGAGAAATGAGTAGCAACAAAGAGCAGCGGTCAGCANTGTCGTGATC
CTNTTGGCCTCATCACCATCCTCATCTNTACAGCTCCAACAGTGCCAATGAGGTNTTN
CATTACGGNTNCCTGCGGGGCCGTANCCGCCGNCCTGTCAACCTCAAGAAGTGGAGCAT

TGGGGCCGGGAGGAAGTCTAACCTTTGGGAGACTCCAAGACCGCAGCTCCGAGGTCGGCG
GGGGTCTGGGTGGCCATGGAGGAGCCCCCTGTGCGAGAAGAGGAAGAGGAGGGGAGAG
GAGGACGAGGAGAGGGACTAGGTTGGGCCCGAGGGGGCGCTTGGCAAAGAAGCCCCCTCC
AGCTGACCGCCGAGGACNGTGTATNACATCTNCTACCTG

TGGCGATCGCTGAGAGGCACGGAGGGCCGAGGCGGNCCTGGGAGGCGGCCCGGAGGTGGG
GCGCCGCTGGGGCCGGCCCGCACGGGCTTCATNTGAGGGCGCACGNGCCGACCGAGCG.
TGCGGACTGGCCTCCCAAGCGTGGGGCNGACAAGCTGNCGGAGCTGCAATGGGCCGCGGC
TGGGGATTCTTGNTTGGCCTCCTGGGCGCCGTGTGGCTGCTCAGCTCGGGCCACGGAGAG
GAGCAGCCCCCGAGACAGNGGCACANAGGTGCTTCTGCCAGGTTAGTGGTACTTGGAT
GATTGTACCTGTGATGTTTGAACCATGATAGATTTAATAACTACAGGCTTTTTCCAA
GACTACAAAACTTCTTGAAAGTGACTACTTTAGGTATTACAAGGTAACCTGAAGAGGC
CCGTGTCTTTTTGGAATGACATCAGCCAGTGTGGAAGA

CCACGCGTCCGGGGTGTGGTGCGGCGCTGTTGGGGTCTCCGCTGGCTCATGGCGCCAG
GCGTGGGAGGCCGAGTCCCCAGTGCGGAGCACTGGCCCGACTCGGCTGGGAGGACTGCCG
GGA CTCCAGAGTCCGCGAGGCGCTGCGGGCGCTGCACGCCGCCAGGGAAAACAAAGAAGA
AGAGTTAATCGACAAACTGGAGGTGGTCACAATGCCTTCCCCATACCAAAGGACTGCC

TABLE 1

172/467

AGTGAAGCAATATGCTGTGCAGTCTCAGCTTCCCGTATATGAGTGGCCGGATGTGGGATC
TGGAGAATATGATGTTGGAGTAGTGGCTTCGTTTGGCCGACTTTTGAATGAGGCTCTTAT
TCTTAAATTTCCCTATGGCATATTGAATGTTTCATCCCAGTTGCCTCCCGAGATGGCGTG
GCCAGCCCCGTGTAATCCATACAGNTGCTTCACGGAGACACAGTTACNTGGAGTAACAAT
TTATGCAAATTAGACCTAA

Sequence 1061

GCCGGTTCTTAGGGAGGCAGGTGCTGGCCTGGCCTGGATCTTCCCCATGTTCTGTTGCT
GCCTTTTGATACGCCTGATTGTCAACCTTCTGGGCATCTCCCTGACTGTCTCTTACCCC
TCCTTCTCGTTTTTCATCATAGTGCCAGCCATTTTGGAGTCTCCTTTGGTATCCGCAAAAC
TCTACATGAAAAGTCTGTTAAAAATCTTTGCGTGGGCTACCTTGAGAATGGAGCGAGGAG
CCAAGGAGAAGAACCACCAGCTTTACAAGCCCTACACCAACGGAATCATTGCAAAGGATC
CCACTTCACTAGAAGAAGAGATCAAAGAGATTCTGCGAAGTGGTAGTAGTAAGGCTCTGG
ACAACACTCCAGAGTTGAGGCTCTCTGACATTTTCTACTTTTCCGGAAAGGAATGGAGA
CCATTATGGATGATGAGGTGACAAAGAGATTCTCAGCAGAAGAACTGGAGTCTGGAACC
TGCTGAGCAGAACCAATT

Sequence 1062

CCNCGCGTCCGCTTTGAATNCTTATCTTTGATTTAATTTACACGCCAGCATTTTGCCACG
TTCTAAATAATATTTAGCTCAACTGATTATACGTATTAATGACCATTCTAGCAAAGGCC
TACAAGTGGTGTGGGAATCAGGGAAAGGCTGCCTCTTGGTATCTCAACTGGTATTGATT
ATTGCTATCAACTATTTGGGGAGAAAAAATCAAATGAAGCCCTGTCAAATTTTGAAGT
ACTATCTTTGGTCTTCAAACACTTTGTGATGACACCTTAAGAAAAATAAAGTTGAAGTT
CAGGTCTTGCCATTGCCATTACAGACAAATTAGGAGACTTGGTTTACCTGGGAACAAATT
TACTTGAATATTCAGTACCTGAAACTATGCCAAACCAAAGAGCAGCTGCAGTACATTCGT
TATTTTAAATGAACAAGGTTTACAAAGNTTATTTTCATCTATACCGTAAGGNTGGATTTT
TTTTNAA

Sequence 1063

GTCACCACGCGTCCGCCNCGCGTCCGGCGTGCATGGAGGAACGCTGGGCACGGGCCCCGGC
GCGGGTCCGGGGGGCGCCCGAGGGGCCCCGGGCGGAGCGGCGCGCAGGGCGGCAGCATC
CACTCGGGCCGCATCGCCGCGGTGCACAACGTGCCGCTGAGCGTGCTCATCCGGCCGCTG
CCGTCCGTGTTGGACCCCGCCAAGGTGCAGAGCCTCGTGGACACGATCCGGGAGGACCCA
NACAGCGTGCCCCCATCGATGTCCTCTGGATCAAAGGGGGCCAGGGAGGTGACTACTTC
TACTCCTTTGGGGGCTTGCCACCGTTACGCGGNCTTACCANAACCTGCAGGCGAGAAGACC
ATCCCCGCCAAA

Sequence 1064

GTGCCACGCGTCCGCCACGCGTCCGCCTGCCCTCGCCGCCCGCCGCTGCCTGGGCCGG
GCCGAGGATGCGGCGCAGCAGCCTCGGCGGCCAGGCTTGCTCCCCTCCGGCACGCCTGCT
AACTTCCCCCGCTACGTCCCGGTTGCCCCGCCGGGCGCCCGTCTCCCCGCGCCCTCCG
GGTCCGGTCTCCAGGAGCGCCAGGCGCTGCCGCGGTGTGCCCTCCGCCGCTCGCCCGCG
CGCCCGCGCTCCCCGCCTGCGCCACAGCGCCCCGCGCCCGCGCCAGTCTCGGGCGGTCA
TGCTGCCCCCTGCTGCTCGTGGCCGCCCTGCTGCTGGCCGCCGGGCCGGGCCGAGCCTGG
GCGACNAAGCCATCCACTGCCCGCCCTGCTCCGAAGAGAAGCTGGCGCGCTGCCGCCCCC
CCGTGGGCTGCAAGGAGCTGGTGCGAGAGCCGGGCTGCGGCTGTTGCGCCACTTGCGCCC
TGGGCTTGGGGA

Sequence 1065

CGCGTCCGAACGGCATCATCACGCCCGCCACCATCCCCAGCCTGGGCCCCCTGGGGAGTCC
TGCACTCAAACCCCTATGGAATACGCCTGGGGGGCCCAACGGCCTGGATGCCATCATCACAC
AGCTCCTCAATCAGTTTGAAAAACACAGGCCCCCCACCGGCAGATAAAGAGAAAATCCAGG
CCCTCCCCACCGTCCCCGTCACTGAGGAGCACGTAGGCTCCGGGCTCGAGTGCCCTGTGT
GCAAGGACGACTACGCGCTGGGTGAGCGTGTGCGGCAGCTGCCCTGCAACCACTGTTCC
ACGACGGCTGCATCGTGCCTGGCTGGAGCAGCACGACAGCTGCCCCGTGCGGAAAAA
GCCTNACGGGACAAGAACACGGCCACGAACCCCCCTGGCCTCACTGGGGTGAGCTTCTTC

TABLE 1
173/467

TTCTTGTCGTCATCGTCCTTCTTCAAGCTTGGCCAGCAACGAGAACGCCACAAGGAAACT
NGTGAGCCCACGTTNGGCCGTCGGGAAAACACGGGGN

Sequence 1066

CGCGTCCGGCCTCCAGCACATCCTGCCTGCAGAGGGTCTGGCTAGCTGCCTTTTCAGCTC
TCGAGGGATAGAGATTCTACAACCTCCCTCTGTCATCAGTTCAGAGCCACTCCCCTTTG
CACTAGAAGTTCTTGCTTTCAAAGAATGAGGGTGTGAGGGAGGGAGGGGTCAAGAAACAG
AGTGACAGGGGAAACAGGCAGAACAAAGTCAGGGCAAAGGACCCAGCATGAATAGTTGTG
GAGGTGGAGGTGGGGAAGCAGCCTCACATCTCACACTTCCTTCTCTTAAATGTGAG
CAGCTGACTCCAAGCCTTGTGGAAACTCTAGAAGGTAGAACCAGCCATCTGGGGAAGCTG
GCCTTACAGATGCCCCGTCTGGCATAGTGGGAGGTTCTGTGCTCTGAGAACCCAGTGT
GAATCTAGACATTCAGCTGCAGCCTGGGAAGAAGCCTGTGTTTTCTTTAAAAAGTCT

Sequence 1067

GCGTCCGGTCTTAGGGAGGCAGGTGCTGGCCTGGCCTGGATCTTCCACCATGTTCTGT
TGCTGCCTTTTGATAGCCTGATTGTCAACCTTCTGGGCATCTCCCTGACTGCCTCTTCA
CCCTCCTTCTCGTTTTTCATCATAGTGCCAGCCATTTTTGGAGTCTCCTTTGGTATCCGCA
AACTCTACATGAAAAGTCTGTTAAAAATCTTTCGCTGGGCTACCTTGAGAATGGAGCGAG
GAGCCAAGGAGAAGAACCACCAGCTTTACAAGCCCTACACCAACGGAATCATTGCAAAGG
ATCCCACTTCACTAGAANGAGATCAAAGAGATTNGTCGAAGGGGNCNNAGTAAGGCTC
TGGACAACACTCCAGAGTTCGAGCTCTCTGACATTTTCTACTTTTGCCGGAAGGAATGG
A

Sequence 1068

TCGACCCCGCGTCCGGCTGGTTTTCCGTCTGGTGAGGGGTACTTCCGGGTCCGACGGCG
CTAGCTGCAGCATCGGAGTGTGGCAGTGCTGGGCTGGCCGGCGGGCTGGGCTGCGGCCCG
CGCGCGGCCCGCGATGCANGGGGGCAACTCCGGGGTCCGCAAGCGCGAAGAGGAGGGCGA
CCGGGGCTGGGGCTGTGGCTGCGCCGCCGGCCATCGACTTTCCCGCCGAGGGCCCGGACC
CCGAATATGACGAATCTGATGTTCCAGCAGAAATCCAGGTGTTAAAAAGAACCCTACAAC
AAGCCAACCTTCCCTTTTGAAGTTTGCAAACCAACTCTTGCTGGGTTTTCTTGCTGGAA
GCACNTTGAGCCCACTGTGCATGAACCA

Sequence 1069

CCGTCCGGGAGGTTGAAGTTCAGGCTAAGACCGTTACTGAATTGGTTACTAAGAAGAAGC
CAAAGGCTGAAGGCTATGCTGAGGGTGACCTCACTCTCTATCACCGTACCTCAGTCACTG
ACTTCTCCGAGCTGCCAACCTGTTGACTTCTCTCCAAGGCCAGCGAAATCATGGTAG
ATGATGAAGAGTTGGCACAGCATCCAGCTACCACTGAGGACATACGGGTGTGCTGTCAGG
ACATCAGAGTGTGGGGCGCAAGGAGCTCAGGTGCTACTAACTGGAGAACAAAACCTTC
GGCGATATGTGGCCAAGAAGCTGAAAGAACAAGCAAAGGCACTGGACATCAGCCTCAGCT
CTGGAGAGGAAGATGAAGGTGATGAGGAGGACTCAACAGCTGGAACCACAAAGCAGCCCT
CTAAGGAGGAGGAGGGAAGAGGAGGAGGAGGAACAACCTGAACCAGACCTTGGCAGAAAT
GAAGGCCCAGGAGGTGGCGGAATTGAAGAGGAAAGAAAAAGAAG

Sequence 1070

GCGTCCGGTGTCTGGAGGAAAATGTTTCTGGGGAAGATGACTCAGTCATTTTGTGGCGAGA
CACCTTTTGTTAACTCCCACTGACCACTGTTGGGAGCCTTCTGGAATGATCGTGGGCTG
AGCGGAGATGTTTTTGCAAAATGAACTGAAGCTGAAAGAAAGGAGAATTCGAGTGAAC
CAAGAGAAATCCAAAGACCTGGGGAAGGAGGACTTAAGATGAAAGTGAAGCAAGAGAGGG
AAGGGGAAATGAAGTGAATGGCGTGAGGGTGTGAGAGAGGTTTGGGTTAGGAAACATG
TTTTAGTGCTATTNCAACCAGGG

Sequence 1071

CACGCGTCCGGGACTGATCTCNAGGACCAGCACTCTTCTCCAGCCCTTAGGGTCCTGCT
CGGCCAAGGCCTTCCCTGCCATGCGACCTGTCACTGTCTGGCAGTGGAGCCCTGGGGGG
TGCTGCTGTGCCTGCTGTGCAGTTCGTGCTTGGGGTCTCCGTCCCCTTCCACGGGCCCTG
AGAAAGAGCCCGGAGCCAGGGGCTTCGGTTCCGGCTGGCTGGCTTCCAGGAAGCCCTA
CGAGGGCCGCGTGGAGATACAGCGAGCTGGTGAATGGGGCACCATCTGCGATGATGACTT

TABLE 1
174/467

CACGCTGCAGGCTGCCACATCCTCTGCCGGGAGCTGGGCTTCACAGAGGCCACAGGCTG
GACCCACAGTGCCAAATATGGCCCTGGAACAGGCCGCATCTGGCTGGACAACTTGAGCTG
CAGTGGGACCGAGCAGAGTGTGACTGAATGTGCCTCCCGGGGC

Sequence 1072

CCCGCGTCCGCGCGACGGCCGCGGCGGGACCTTAGGACCCGCGGGCTCCAGGGCTACT
GTCCGTCCGCCACTGCGCGCCAGCAGGTCTGGTCTCCGCTCTCCAACAGCTGAAAGGCC
GGCGCAGTGAACACAGAAACGAAAACCAAGAAATGCCTTATTCCACAAACAAAGAGTTGA
TACTTGGCATCATGGTGGGCACTGCTGGAATCAGCTTGCTGCTCTTGTGGTACCACAAGG
TCCGTAAACCAGGGATAGCAATGAAGTTACCTGAATTTCTTCTCTGGGTAATACATTTA
ATTCAATAACTTTGCAAGATGAAATACATGATGACCAAGGAACAACAGTAATCTTTCAAG
AAAGGCAACTTCAGATACTGGAGAAGTTAAACGAATTCTGACAAATATGGAAGAACTCAA
AGAGGAAATCAGATTTCTTAAAGAAGCTATTCAAAGCTGGAGGAATATTTACAAGGATG
AACTTGGGAGG

Sequence 1073

CGCGTCCGCTGAGTTCNAGGATGGTTTTTCTTGGGACCAGACATGAACAAAAGTTGACC
TCATGAGCACTTCAACCTCTCCAGCTGCCATGCTCCTCCGAGAGCTGCGGCGACTCTCCT
GGGGCAGCACTGCTGTCCAGCTCTTCATCCTAACAGTGGTGACAGTTTGGCCTGCTGGCC
CCCCTGGCCTGTCAACGACTTCTACACTCTTACTTCTATCTGCGCCATTGGCATCTGAAC
CAAATGAGCCAAGAGTTCCTGCAGCAAAGCTTGAAAGAGGGTGAGGCTGCCCTCCACTAT
TTTGAGGAGCTTCCCTCTGCCAATGGCTCAGTGCCCATTTGTCTGGCAGGCCACCCCCCGG
CCCTGGCTGGTGATCACCATCATCACTGTGGACAGGCAGCCTG

Sequence 1074

CGTCCGTGAAAATCCAAAGATGTATCATTTTTATTTGAATCCATCATGCAGTGACATTT
CAGATAATTTCTTCAGTCTCCAGATAGGAGTGTATCCAAACATCTAATTTTATGTGCAC
TGTGTATCTTATATGAATGTTTTATTTATATACCACATGCAAAAATGNCCATATGCACT
ATTTAAATGTTTTAAATAATATATTCCTTCTTTATAATGCTAAATCTATATGAGTACCAT
ATTTTTATAAGTCAGTGGTCTGACNGGNTTCATTTTTNAANTAACNNNNNGCTTCAAAATG
GGTATTCAANGNGAAAAGGGTGGNTGTGAGGAGAAANATGTGAAAGNNGNNTGGNGNNTCT
CTTTTGCCTTTGGGCCAGGAATTTNGGGGGGCNAAAATNNACCCANAACCTGGNNNAAAAN
TAGGNCCATTTGGGGGNGANAGGTTTCACTTTGGGGCNCAAAAANAAAANCCCCGGGGTTT
TTTNTNTTTNCCAAAATANATTNTTTTTGGGATTTTTTTTTGTNCCCCCCCCGNATTAAA
TGGGGANTTGGCTGGNGTCTTGGCNCCTNTCATTTGTGCCAGACCTTTTTTTTATTAATA
AAGAACCTTGGGAAAGGTCTTAAGTNCATTTGGGAAAAAAAAAAAAAAAAAAAAA

Sequence 1075

GAGCCGNCCCACGCGTCCNCGNCGCGTGGGCTACCTTGGAAGCAGTCATCTCTCAGTCT
TACATTTGGAGAATGTGGATGGCATGACATCAGAATTCCTTTATATAATTTAACTTCAGA
ATAGTCTGAGATCATCGAAGCACGATGGTCAAGGGAATTCGTTTTTGTTTAGAGCAAA
TATGTTTGCTGTTTGTCTTTCATCACAACATCAGTGGAGTTTCAGCACCTTACAGAGCT
CAGTGAACCCCTGGTCACCATCAAAGTTAGCACACAACAAAGCCAACCACGTGTCCCCC
TCACAGATGACAATGGCTGAACTCTGAGTGAAACCACCTGTATGGCCGGGCACAGTGGCT
CA

Sequence 1076

GCCCCGCGTCCGCTTTTTGAGAATCTCTGCTCTGTTTCCTAGGTTCAAGTCTGGGTCCTGG
GAATACAGCAGGACAGACCTCAGCTTATCTTTCATAGAAATTATACAAAGAGAATTGGG
GAGACAGCTAAGAAGAAAACAAAGAAATAAAGCAGTTACAAATTGTGATAAAGTGCTTTT
GAAGGAAAGAAGGGGTCTGAGACAACAACAGGGAAGGGGCCTCTCTTGAAACAGTAGTTG
GGAAGGAGGCAGACATGCACCAAGTGTGTGGTGACAGGTGCTCTGAAGGAGGTCAACAGG
ACCTGACCTCTTTGAAGGATCAGAAAATACTTCCCTGAAGGACTGACATTTGAGCCTAGA
CCTGAAGGGTGAGCCATCAAGCTAAGACAATTGGGGAAGAGCATTCCANGGAGAGGGAG

Sequence 1077

CGCGTCCGATCTTTGTCTGCTTTCCTATAACTCAGTACTGTAACCTCAGTACTCTGAAATA

TABLE 1
175/467

GTTTCCTTTGTTAATAGAGTCACTTTTATAGTACTGNGCTTGAGGNNATATACAGAGTAT
TGTGTCCAAATTTATCATTGCACAAAGTGTTTTGGAAATTCCTGGTTACTCCTTAGTAA
ATTACCTGTAATTGGGTAAATGCTGGTAGGGTTTAAAATCTGATTGCTAAAGTGAATTC
TCTATAAAGTGAGTTTTGATACATAGAACTTTNCATATAATTCTTAAACTCATGTGTCA
TGATTTTTCATTTATAGTTTTTATATTCAATTAACATATGTTGTTCCCTTACCATTACAG
CTCANAATTCTGCANATGCAGATTTTTGCAAACCTTGATGCATTTGGACAGTCTAGTGGT
TCGAGTAATTTGGAGGTTT

Sequence 1078

TNCGGGCGGCTGCGGCGGGCGGGCAGGCGGGCAGGCCGGCAGGCGGGTGCGCGGAGGGCT
GGTACCCCTNAGCAGGTGGGCGGGGTGCGGTTGGNGGCGGCGGCTGGGCCGGGGGCTGCC
CGGCTGCGCTCGGGCCGTGCGCGGNGGCCGTGCGGGCACGCCATGGACTTCAACATGAAG
AAGCTGGCCGTGCGACNGCGGGCATCTNTNTTACCCGGGCGGCTGCANTTACGCGAGGA
GAAATTTGGCCAGGCTGAGAAGACTTGAGCTTGATGCCACTTTGAAAACCTTCTGGCC
CGGGCAGACAGCACCAAGAACTGGACAAGAAGATCTTGAGGCAAGACAAGAGGTGCC
TGCTGCAGCCCCAACCCAGTGCCCCGAGTGGAGGGAATTANCTGTATGAAGAAGCTTG

Sequence 1079

CACGCGTCCGTGCTGAGCGGTCCCGAGGGGAGGGGCCTGAGGCCGAGTTCAGTCCGTGA
CCCCTAGCCAGATCAAGTCCATGGAGAAGGGGGAAAAGGTCTTGCCCTCCCTGCTACCGGC
AGGAACCTGCCCGAAGGACAGGGAGGCCAAGGTGGAAAGGCCAGCACCCCTCCGTGAGG
AGCAGCGTCCCTCTTCCCAACGTGAGCACCGAACGTGAGAGACCCAGCCTGTCCAGGCCT
TCAGCAGTGCAGTGCACGAGGCTGCCCCCTCCAGCTCGAGGGGAAGCTGCCATCTCCTG
ATGTCAGGCAGGACGATGGGGAAGACACCCTGTTCTCGGAACCCAAGTTGCACAGGTCA
AGCTCAAGTAATGTCGTCTTGAAGACGGGATTTGATTTTCTGGACAATTGGTAAAATGTA
TTAGAAAAATACAATGAAAGAACCCTAAAATGTTTTCCAAAATGGTGTGGTGGAGGAGGA
TAAAAAAGGGCCACCTTTTCTATGATTTTACTGGTTTCTTGACACTCTTTTCTTAATC
ATTTGGAACTGGTCAATACTGNCAGATTTTTT

Sequence 1080

GTAAGCCAGGTGCTCCCCCTTCACTTCTGTGTGCGGAGCACGCTCGCCCTGGGAGTTTC
ACTAGAAAGAAGGTTGCCATGGGCCAGTGGGACAGCTTGGATCTCAAGTGCACGCGGATG
CCCCAGAATCCAGGATCTCAGCTGAGCTGTTTGTGGATTATTAGATCTGACTTAAAAGA
ATATTATCCAGCAATGCAAATGAACAACTATAACTACACACAGCTGCATGGATAAATGT
CAGAAACATGACGTTGAAGTGTGAGAAGCCAGATGCAAACCGAGGACTCACTGTGCAATT
CTGTGCATGTACAGTGGCCAGGAGAAGGGAGCACTGGCTTTTGCTTTCATCAGGCCAAAG
ATGCCCTTTCTTTGGGAATACGTTCAAGTCCCAAGAAAGACACCTCCTCGGAAGGTGGCA
TCTTTCTCCAACCTGCATTCTTTGGATCGATCAACCGGGAGGTGGAGCTGGGCTTTGAA
TACCGATCCCCGACTATGAACCTGGCAGGGCAAAAGCCTGAAAGTTTAAAAAT

Sequence 1081

TGCTCTCTACCTGTTAGCTGTGTAGCATTGGGCAGGTTACTTAACCTGTCTGTGCTTCA
TCTGTGAAACAGGAATAACAGCATTATTAAGGATTGTTTTAGGATTGGATGGGTAAATAG
ATGTAAAGTCTTAGAACTATATTGAGCATCCCATCAAGGCATTGTATTATATTGAAACAA
TGGGGTTTNTTCTCTTTATNCTTTTTTAACTATATAATGAACACTTTTGATCTTAAGT
ATTNCTAA

Sequence 1082

CCCGCGTCCGGTGAATGTTAGTATTGGGTGTGGGATGCATCAGGGACACAGGTTTGTAAA
CCATGACAATTCAATTGTAAAACTAAAGCCNAGTGCCCCCTGTAGTCCCAACTGCTGGGG
AGGGTCACTTGANCCCTAGGGGGGGGAAAATGCAGTGGACTGGATTTTGNGCCCTTGCAC
TNCAAACCTGGGTGACATAGTGAGGCCCTTGCTTCTACCANAAAAAANANNANNNN
NNANGGTGCCGGGCGCTTAGAACTAGGTCTTAGAAGAAAAAACCTCCCAACCTTC
CCCCTGAACCTGGAAAAACATNAAAATGGAATGCCAATTNGTTTGGTTGGTTAACCTTTG
GTTTTATTGCAAGCTTTATAAATNGGTTTACCAAAATTAAGGCCAATTANGCCATTTC
ACCAAAAATTTTCACAAAAATAAAAGGCCATTTTTTTTTCACCTGGCATTCTTAGTTT

TABLE 1
176/467

NNTGGGNTTTTGGTCCCAAAACCTCATCNAATGGGTANTCTTAATCATGTCCTNNGGGATC
CCCCCGGGTTACCCGGAGCCTTCGGAATTAATTTCTTCTTTCCGCTTTTCCTTCGC
TTCCTTGACCTCCGCTTNGNCTCGGGGTCCGTTTCCGGGCTTG

Sequence 1083

TCGACCNCGCGTCCGTGGAGGGCCCATCTGCCAGAGCCTGGAGTCTGCGAAGGCCGGGAC
CCGTTCCCCGGCCACAGTGGGGGTGTGCAACCCGAGAGAACTGGGAAGTGCCGTCAG
AAGCGATAACTGACGACGTCTAATGTCTATCTGACCGCAGTCGCTGAAACCTCTACAAC
TAGTTGACCGTAACTGCCAGAGCCCTGCCCTGAATTCCTGTCCTTACTCCCTCTTTAAGA
TTGCGTACCCACTGCAGAGTGCTGAAGACGGGGTAGCCACCGAGGTTGCAAATTCGTGAA
GAATCAGCATCATGTTTGGCAGCTGAGTATTGGAGCCAGGAGCCTGCCATGAGGTTTTGA
GAACAGAGTGCTGTTTATAGAGCTGGCAGCAGCATCTCAGCCCAAGAGAAGGTTATATCC
CAGAGGATGTCAGTCCCAAGGACCAAGTAGCTGCCATCAGTTTGGATTCTGAAAACCTAAC
TGGCATCAAACCTGGGTGTAGAAACATG

Sequence 1084

CGCGTCCGGACTGTCGCTCTAAAAGAATGAAGGAAATAATAAAGTGATAGACAGGGAAGG
ATAGAAAAGACTTAACAATATACATATGTTCCGCTTTGCTGTTTTGGAGAATGATGGAT
AAGTANGTGTTTCTGATTCTGAAGCATAGCTGAACAATTTAATTGTGGTTTACCATCTT
TTTGGTTCCCTCTTCAGTAATTAACCTATCGAAAATCTGTCCTAAATGTTTGGACTGGGG
CACAGTTCCCTCCATCGCTTTGGGAGAAAATCATTAAATATGGCATACTGCAGATTGGAGG
GCAGGACCACTGAGGGTGTATAGACATTAGCTCTATGGAATTCTGCTAGCAATTTCCAA
GTGACAGTGAGGAATTATGGATATATGTTTGAAGTCAATCAAGCTTCCTGAGTACCACAT
TCCCCAGCTACTTAGACACCGGGTTAAATATTAAGATGTCCTAGTTCAACAGCTTGAA
TTCCATTGATTGGAT

Sequence 1085

GACCCCGCGTCCGGCTTCTGGGTTGAAAGAACCCAGTTCAGGAGTTTCTGTTTTAGTT
TGAGATCTTATAGGCCTGTCTCATCAGGTTGGTGTGAGCCAGCTAGGATTAGGCAGAAT
TGGGTGGGGGCTGTAGTGCATCTTTGGCACAGCATGTACCTGTCTGACTAATTCTCTGTC
TTTTCTTCTGTTGCAATTCATGGGTCTTAGCATCTTCTGAATGGTGTTTAGTAGGTCA
TCCTGTTGATTTCTGCTAGGGAGTAGCATACTCTGGCTCTGTACCATTGGCCAAGGGAC
TTAAGGATAGGTGAAGGGCTGCAGTTTTGTTAAATGGAACAATATGAAGAGATGGCATTG
TAAAAAACTTNTGNCAACTNAA

Sequence 1086

TGTCGCCCCGCGTCCGATCAAATCTTGATGAAGGATTGTAGATTTTTGCTTTTTCTTTTT
GTTTTTAAACTTATTCCAATTGCTAAATTGGTAGTTTTTCAGTCTTTATAAATACAGGA
TTAAAAATATATACAGTTATATGAAATGTTTATTTTCTATGTGTGTGCATATAGTTCA
ATATTATGCAATAAATTTGGTGTTTTAACTTAAACTATTTCTTATTGTAAGTGCAGAAT
GGATAGCTTGCTTTTAGTAGAAGCATTAGGTCGTATACTCAGATAATCTAATAGAAGGTC
AGATTTGATTCTGCATAAGAAAAGTAGAGCCCAAGTGTGCAGAAATGGAGAAGAAAGCA
GGGGCAAGGGAGCAGATGGCATTAAAGGAAGAATGAAGTTTTTGAAGGTTGGGGATGGACG
AAAAGGGTGTTTCTCATGGAGAGGGGATGCTTTAGCAAAGGCTCAAACATTGGGGCATAT
TAGGCAAGAGCCAAGAAACAGTTTGAAGGGGAACATCAGAGGAAATAGGCCAAATTAAT
AGTAAATN

Sequence 1087

GGNGTCGACCNCGCGTCCGGAAATACTCAAATAATGCAACATTACTTCCCAGAAATGAAA
ATACATTGCATCTCTTATTGAAAGAGCCAACAGAGGCAATGAAAAATAAATGTACACATA
TGTGCACCCTTAATTTCTTATAATGAACCTTGAGAAATCAAGGCTTTAGAAAAATGCTGA
GAGACAAGAAGCTTCTGAGCAGCAACACTGGATGCAGGAAAAAAAATGGAGTAATAAGTG
TAAAGTCTGAGGGGAAAAAATATCAGAACCTAGAATTCTAAATTTAACCAAACCTGTC
ATTAAGTAAATGAGAAAAGTAAATTTCTTTTGAGAAACGCAGAGCCTAGAAAGGATTACT
AATCGGTAGGATCATCTTTTTTTGTTTGTGTTTGGNTTGGGGACAGACTCTCACCTCT
GTCACCCAGGCCTAGGTTTGCAAGTGAGCCCAGGATTGTGCCACTGCCCTCCAGCCTTGG

TABLE 1
177/467

GGGTGACAGGAGCAAGGACTTCATCTCAAAAAAAAAAAAA

Sequence 1088

TCCCCCTGCCCCCAAGCTGAGGGAATAAACTCTGCCTGTCGGGTGCCCCACCAAGGGA
AATAAACATGGCCTAGCTGCCAAGTCATGCCTGTAGGGTGCTCTCTACTGGCAGTTTCTG
GGTGGTGCATACATCTAGTCTCCCTAGAAGAGCACAGTCCAGAATTGAGGAGGTACAGCA
GAAACAGACTGCAGGCAGAGAGAGGTCTCATAGAGCTTGGACAGGGCTAGGCACAGAAAG
AACAGGCAGCGTATCCAGAAGGGGGCAGGGAATGGGTGAAGAGGTTGTGCTCTAGGGCAG
AGCTGAGCTCTGATCTAGAAAGGACAGCAAAGATACCTGGAAGGCCTCCCGATTCTTGCG
TTGTTGGCGTCGCTCCCGAAGCCGGG

Sequence 1089

CGNTCCTTGGGTAAAAGCGTCCCAGAGACGGGAAGAAATATGGTATAAGCGAGAAGGCCT
CATAAATCTGGGCTGTTAAAAATCTAAGTTAAAAATATGTTTAAAGTCAGAAAAAAAAAA
AAAAAAAAAA

Sequence 1090

CGCGCCTGGTAAATTATATAAGCTTAAAAAACAAAAACAAAAACACTTGCTTTGAAAA
GAGTCTCTCAGCAGCAATTTTGTCTTGCCCCTACTTCCACAGTTCCTTTTCTTACCATT
TCACATCTGGATTACTACATTGGCCTCTTTGCTTAGACTCCCAATATTCATTGCTTTCC
TTCACCCCATTTTATGGAGGACTGTCAGATCAATCTTTTAAAGATAAATTTTATAATGTT
ACTACTGTTGCCTATTGGATTAGAGCCCTAGGGGTGCTTTTTGTAGTCTCACTGACAGCT
GACATTAGTGATTTTTACCCCTCTTCTTATTGCTACCCTGTGTTGATGGCCAGTTTCCAG
GTGGGCACCTGCTCCACTTGCTTTTCAT

Sequence 1091

GGGGTATGTGTGGTTCTTCCAGGAAAGTGCTGAAAATATCACCCAGGCCTCTGCGCCACG
CCCTGGGAGAGTACACTCCTGGGCTCACGCCTCTGCATTCCAAGGCTGACAGCTAGAAAT
ATACTTTGTAAATACCAACAACTTATTCACAAATATTCCAACTATCTACCAGCTCCAAT
GAGCTTGCTGAGGATGGGTATGACCCAGTCTAAGGGGAAAGAATCTAAACACAAGTAA
ACCTGTTTAAAGGCCAGATCTCCAGATGGAGATCCAAGCAGATGGCGCCTAAGGTTTGCC
CTTGAAAACCTACCAAGGAAGCCACAGAGAGGGATCTTTGGACCTTCTGGAAAATGGTAAG
GCCCCAGGTAGATTATGGCTCCTCTGCCCTGGAGGCTGAGCCGCCCTCTGGTTACCTCAC
ATCTTCTGGTTTCTTCTGAGTGGGACTTGATCTCATTTCTGCATTACAGCAAGGNGGAA
CTGTCTGGCAAGAGCTTAAATTAGGACCTGNTGGTGGGGACCTTTAATAGCAGGTGGAG
GGTTTGAGATCCCNTGAGATGCCNAGATTAATTCAATAGGGGGGANGAAAGATTGGCCCC
AATTCAAAAGNGCTTAAAAAAAAAATTTT

Sequence 1092

CGCGTCCGGTTCTTTGGTTGAGCTTCTTTGTATCAGTAACAAAAGGAAGCATCATTCACT
CTTTCTTTGTAACCTAATGTAAGTCTCTTTGTACATCCTATTACTTCAAATCATTGAAG
TGAACCTCATTTTACATCTGTTGGGAACAATCATCTAGCTTCTTAAATGACTCATCTTA
AAATATGAATTTTAGACTGCCTAAACATTCTGAGGGAGTACAGTGTGATATAGCAGAAAC
AACCAGGGGCTTAAGAAGGATCAAAATGAAAGGTTTGTGAAGGATGTGCCAGAGACTGCT
CTCTGTTACCAAAACCACATTCTTCTTCTTCTTCTGTCATAGAGCCAGACTAGATTTCC
AAGCTTTCCTTGCAATTGAGCTCTCAGAGTTCCTCGTCATTAGAATGTGAATGATAGGCCG
GGCGCAGTGGCTCATGCCTGAGATCCCAACACTTTNAGAGGCCAAGGTGGGTGGATCACT
TGAGGTCCAGAGTTCNAGACCAGTCTGGCCAACGTGGTGAA

Sequence 1093

CGCCCCGCGTCCGATAAAACTGGATTTGATTTCTTTTTATGAAANGTTTCATATGAATGT
AACTTGATTTTTTACTATTATAATCTAGATAATATGATATAAGAGGGCTAAGAATTTTTA
AATTGAATCATATATATGATATAATTTGATCCTTCTTGATCTTGAAGTTTTGTACTTGG
GATTTCTGGACTGATAAATGAATCATCACATTCTTCTGGTAAATATTTTCTTGGAGCTCT
GTGTCAACTTTGATCCTTTGTCTCCAGGAAGGTGTGACCTCTCCTTTGCCTGCATACCT
CAAGGCCAGGGGAATATGCCTCAGTGATGCATTATCTTTGTATATCAGGCCGCATGATT
CCCAACTTTCTGCCACACTTAAATTACGTTCTCCATTTCACTTTTGTCTTTCTGTCTA

TABLE 1
178/467

AAGTTCAGTCAAAGAGTATCAAAAAATTATGTTTCAGCTAGACTGGTGTAAATGTATAAGT
TTTTGTATCTTGTATTAGAGGATTTCTAGCTTTTATTAGAGG

Sequence 1094

CCCCCGCTCCGATCCCTAGATGACATAACAGCCTTACAAAAGGACAGGGAGGAGTGTCT
GTTCTACTCTCACATAGCGGAGGAAAGTTAGAGCCTCTCAGTCTCTGTTTATGAGGACT
CATTAACTCTCAAATAATTGATGCATTTTTCATACATTAGGGTCTCTGTCCATGTGTCTTC
CTGATATTGTTATAGAAATGGCTTCAGGCTGCTGGTAACAGATGCTGCGGAAAAAGAATG
CCTTAAACAAAGCCAGGCGCGGTGACTCACGCCTGTGATCCCAGCACTTTGGGAGGCTGG
GGTGGGAAGGATCACTTGAGCCTAGGAGTTAGACACCTACCCAGCCTGGGCAACACGGTG
AGACCTCGTCTCTACAAGAAACAAATAATTGGCTAGATGTCGTGGCGCACAAAGCTTGTGG
TCTCGGCTACTTAGGGGGCTGAGGCGGGAGGATTATTTGAGCCTGGGGAGGTCAAACTG
CGGTGGGCTGGGATTGCGCTACTGCACTCCGGGCTGGGAGACCGAGTANGACCCTGCCTT
AAAAAAAAAAAAAAAAAAAA

Sequence 1095

AGTCGCCCCGCTCCGCTCATACCCAGTGAATCTTCAACAGAATCTCTTAAAGATCTCCA
GGAAGTATAAGCTCTCATTAAATGTTTGAGTTAGAAGAACTTATTCTGGGCCTTTAATTTG
TTGCATGTGCTGTACTTAAAGCATCCCAGATAATTTTAGCTTATATTTTCATAGTGTTA
TACAGAGCTTGAATTGGAATGGTCCTTTCCTTGCCTCAGTACTTCTTCCATAATC
TTTCTGCCATAACCATTATTTTGCACCATTTCTTAAACACTTATGTGGCAGGCATTA
TGCTAGACTGTAATATGTTTTTTTAAATCCAGTTGAAGTGGATGTGGGAAGGTATTAGA
AAGTAGAAGAAAGTATAGTCTAAATAGAGAGGAAAGAAAGGAAGAGAAAAGTGGGATAT
TTCAAACCATTTGCGCAGAGGTAGAATGAAATTCGCCAGAATGGGAATCTCCGTATTTCT
TTTACAAT

Sequence 1096

GTNGCCCCGCTCCGAGTNAACAGTGGTAGTNAAATTCAGGGTTGGTAAGTTTTTCCATA
GAAGGCCAGATGGTAAATATTGTAGGCTTGCAGACCATGTGGGCTCCACGACTCAACTCT
GCCACAGTAGTTTGAAAGCAGCCACAAACAGCCTTGGTGTGACTTTGTTCCAGTAACTT
TCTTTATAGAATTGGGAGAAAATATTTGCAAACAATGCATTCAACAATGGCCTGATGTCCA
GAATTCATGAGGAACCTTAAAAAACTCAACAACAAAAATCACCAATAACATTTAAAAAGTG
GGCAAAAGATATGAATAGTCATTTTTTCAAAAAGAGACATACCGAATGGCCAACAAGCATA
TGAAAAAATACTCAACATCTCTAGGCTTTCAGAGGCATGCNAANTAAACCNCCATTNGA
TATTATNTTACNNGANCCCNAAATGGGTTTTTTTTTAAAAGGCCAAA

Sequence 1097

CCCCNCGCGTCCGTTNAAAGTGTGCTTTGGAAAAGGGAAAAAGTCTTAAGTAGATATAAAA
CCCTAACTAAGGAAGAAAGCAGGTAGCAGTGGTGGTCCAAGAGACCGTGTAGTGGATGCA
AGGACCGCTCGTATTTTACACGCTATATTTACAGCAAAGGGTGGCCCATCTGGCAGGAAGA
TGGGGACATATGTCACATATAGAGCAGTTAAGGAACTAGGGAAAGTGGGAAGACTCAGAAG
ACCTGTCTTTGACCTGGTATGTTCTATCTCTACAGAACCTAATATGGCTTATACATACTG
CCACAGAAAGGACTGAGGTAGACAGTGGCAAAGACTTCTAGGAGTTGAACCCCTGAAAT
TACATAAGGAGTAGGACCCCAACAGAATTCTGTCTTTGTAGGCTGCTGACTGCAGAAGAA
ACGGTGTAGCGGAGGCAGGGGGAAGAGGAGTCAGNANAGTACACTGGGAAGGAAGAAACG
GGTTCTTTTCTCTT

Sequence 1098

TCGCCCCTGGGCCCTCCTAACCAACCAGGGGAGGGGAGAAGGACCCAATTCTTTTCTTTT
GGTGACGTAGCCTGGACCCGTTATGGACAGAGGCCAAAGGAAGATAACAGTGTGGTGTG
CAGAGATGAAACCAAGTGGTTGATGGGCAGTTCTTTGAGCAACCTTGTTTATGAGCCTAT
TGATATGCTATAGAGGCATCCAATACTATTGACTAATTTAAATCTTATTCAGTGAG
TCAACACTCATAATAAGCAATGGAGATGGTCCATTCATTTTTTGCAAGTATCATTTTT
ATAAACATAAATTTCTGAGATTTTTGTTTTCATCTTAGCCTCTGTGGAGCTGCTTCGTG
GTTATGATAAGTGCTGTGTGATGCTCACCTTGGGAGGTCTGCGACATATATTGAAGTCAT
CTCTAACCTGAAGTACTGACAGACTTTCTGGAAGAAAAGGCTTGTAGGAGGAAACTTCAG

TABLE 1
179/467

AATTCTATTAATGGTGTAATGATGAAATTATAGTTGATATATGCTAGAGCATCAGTGC
TGGGTATTTTAGAAGGGATGGA

Sequence 1099

CGGGCCTGTTCTAGAGCCTCATTGGAGACATTGACAATGCCATGAGGACCTTCCTCAAC
TACTACACTGTATGGAAGCAGTTTGGGGGGCTCCCGGAATTCTACAACATTCCTCAGGGA
TACACAGTGGAGAAGCGAGAGGGCTACCCACTTCGGCCAGAACTTATTGAAAGCGCAATG
TACCTCTACCGTGCCACGGGGGATCCACCCTCCTAGAACTCGGAAGAGATGCTGTGGAA
TCCATTGAAAAAATCAGCAAGGTGGAGTGC GGATTTGCAACAAAAGATCGCTTTGGCTGC
TTTGTGAAGAATAGATTGAAAGGGTCAAAGGTGAGAGCCATCTCACATCCATGCAGGAAC
CAAGCAGGCAAGATATAAATATGAAAGTAGAAGAAAATAGTCTGGAAGAAAATCCC

Sequence 1100

CGCGTCCGGGAGTGACCCCCAAGATCTAACAGCTGTTTCAGAGCTGCTCATTTTAGAGTG
ATTGGTAGGGAGTTGGTGGCTCAGAGGTCCTAATCAGAATGTGTCCTGGGTTCTGAATGA
CTAGCAGACTATCATTAAACCAATAAATTATGGGATTTTGTCTTAATTATATACATATAC
ATATACACACATACACATACATATGTGTATATATCCCTAAAACCTTAATAAAGC
TCAAATAATAAAATCAGATTTCTTAAGTATTC AATTCCTTTAAAATGTAATCAGATT
TTATAATTCTTTTGTTC AAAACTGTCCATTGGCTCCCATTTCACTTAAATCAAAGCTAG
TTTTTACAATAAGCTAAGATAGCAAACATTATTATCTATTTACTTATGAGTTACTTATGT
AACTCAAGCATCCAATAACACTGTAGGGTGCTCAATAAAATAGTTGCTGAATGGATAACT
TTC

Sequence 1101

TGTTTTACGACAGAGCTTAGTGACGCCNGTTCTTGATGGCTGTGCAATGCTTTCCTTTTA
AGAGTGGAGTTAGCCTCGTCATAAAGCGTGTTTTGAGTCTGTTGCAACGGGTCAACAAC
GAAGGGAAGTTTCAGGCAGATCTTGATGCCTGGCCCTGGTGGCTGCTTTCATTTCTTC
CAGTATCAGTGCTAAACAGGAATGAACATGTTCAAGCCCCGTCTACCCACCTCTGGCAT
CTTCGCCCTAACTCTGCCCTAGAAGACCTTTCCTTCCGTATCGTCAAGAAAACCTGAAGTT
GCTGTTTCACTCCTTCTCCACCCAGAAACTTCGCTGCATCTTCTGGATCCCTAGCTCC
TTGCACCCATGATCCTGTCTCCTTCCCTCAGCCCCGGCTTCTGGCTGAGCAGCCTGCACTTG
CTGTCTTCACTCCTACACGCTGCCCCCACTCCTACACGCTGCCCCCTGCGTGCTTNTCACT
TCTCTACCCTTCC

Sequence 1102

GTCCGTATCCTATCTTCAAATTTTTTAAATATGTTCAAATATCTGGAGGGTGAGAAGTT
ACCAAGTTTGTATGTTTTGTTGACTCACCATCTTTATTTCTGTATATGTAGTAGCTGG
CAATTGCATATATTTTCTTGATTAACATATTAGAGACTGCTTCCATCATCTTATGTAAC
CTGGAAACAAGCTGAAACTAGTCTTTTCTGAAGAACCGTGATCAGTGTTAGATGTGCAT
CCCGTTTTGTATTCCCTCAGACTTTGAATACAGTCATTACTCTCTGGAAGAGAAATGTA
AGTATATTTTTTGTATCTGCAGTATGGTTTAAACATGTATTAATAATACACATATGCAGA
CTCACTAAAGTATCCCCAGTAATTAGTAAATTCCAAAT

Sequence 1103

ANTTGGGTACCCCCGGCCNGGCCAGNTGCGCGCGGGCGGGGCATGCTGCTCGTCCCCCGC
GCCCCCGGCCCGGACACTTGGCGGGTGCCACGAGGACCCGAGCAGCAGTGC GGTTCCCC
CGGCGTTCTGGGCGTGTTCCGGCCCGCTGCGCGGACCTNNGCGGGAGTTGGGGCNTGGG
GGGCGGCNGCCGTTGGTNCGGACAGNCNGGTGCGCACTTGGGCCCCCNTGNCCATGGCN
GCAAAGGTGGACCTGAGCACCTCCACCGACTGGAAGGAGGCGAAATCCTTTCTGAAGGGC
CTGAGTGACAAGCAGCGGGAGGAACATTACTTNTGCAAGGACTTTNTCAGGCTGAANAAG
ATCCCNACATGGAAGGANATGGCGAAAGGGGTGGCTGT

Sequence 1104

TGCCNCGCGTCCGAGCATCTCAGGTAACAATTTGAGCATAACTTTAACCATAACTTATGA
TAGCATAATAACATTCATTAGTAATTCAGTAGCCGTATGTGCCAGGCTGTGTTAGGTGCT
TTATATATTGTTTAAATTTTAAAACTTGTGGAGTGTACAGATTGGTAAGGTGACATTGT
ATCACAAAGCTAGTCTTTGAGTCCAAAGTTTTGTGGTTTTATGTTATGATATACTTTTAT

TABLE 1
180/467

CATGGAATTGTCTTATTAATGTTTTGCCAGTGGTTCTTAAAGTGTGTTTCTGACACCAG
TAGCATTGACTTCACCTAGAAACCTGTTAGAAATACAAATTATTTGGCCCCACCCAACAC
TTGAGTCACAACTTTGCAGATGGGGCTCAATCTGTTTTAACAAGCGCTTCATGTAATTT
TGATGCAGGCCTAAGTTTTTGAGCCCTGCAGTATGCATTTCTATTTTAAAGCAAAGATCT
TGGTCTTTCTTTTGGACATTGTAGAAATAACATGAACCTGGTTTTTGGTTTGGNNTTGG
NTTTGGTTTGGT

Sequence 1105

ACGCGTCCGCTCTGGTCAAGCAGGCGGTACTTCTCCTTGGATGTCTCAGCCACAGTGCCT
ATCAGGGTACTGAGGGAGAGCACACATGGCCCGAGGCCCTNGGAGCCCTCGGAGGCTGAG
TCAAAAGAGTCTCCCTCGAATTGGTGGGCCTTTAGAAGACTTGGCTTCTTCACTGGAGAG
CTATAAAGTAAACACCACACTGAGGGCCCTCGTCCCAGGAAGGCCTTCAGAGCATTTTCA
TTTCTGAACACGTCCCTCATCTTTCAAGATTTTCTGGTCTCTAAAGCTGAGAACTAC
AAGCACTGAAATGAGATGAGTTTTGATAAGGATGGTAATGAAGCACAAAAGCGTTATTCA
CATTACTCACTGACTTTAATATAATTTTGAATATTTTCACTTTTGAAAAACAAAATAG
CCTGGGCGACAAGANTGAGACTCCATCTCAAAGGTAAAANAAATTTAANCTGGGTGCCNG
CCGCTTGACTATGTCTAGAGAAAAAACTTCCACA

Sequence 1106

GACCCANAGAAAAGNGGCCAAAGGGCATGTCAAGCAATTGAAGTTAAGCTCATGTTTTTA
AAGATCCGTTTATTGAGATGATTTTGAATGCTCCTTTACCATTATAATTTAAAAATAA
AGTTTAAACAATGGTTTAAATTCANAATGGATTAAAATGGAGTTGGGGGTGGAAAGTAGAG
CCATTCTTAGTAAATATAAATAACTGAAAAGTTCTTCTGAGGAGACTATGTACCGAAGTT
ATCATTGCATCTTTCAGTATAGGCAGATCTCTCCCTCATATAACCGGATGTTTCTTGGCG
CTTGGAATATCAGATAAAGGTAAAGTTTAAAGAACTTCTCTAGCGGGGGATTTAGGGAAC
TTCTTAAACCTAGAGTTAAAGCTGTTGCGTGTTGTTGTGTTATTTTAGACCAATCAA
CTTCATAGGCTAGACTAGTCTAGA

Sequence 1107

ACGCGTCCGAAAATTCACAGGGTGTGTTGGCACACGCCTGTAATGCCAGCTACTCAGGTG
GCTGAGGCATAAGAATTGCTTGAGCCTGGGAGGCAGAGATTGCACTGAGCCGAGATCGCG
CCACTATACTCCAGCCTGGGCAACANACATCCTGTCTCAAATAAATTAATTAACATTA
TGTTTAAAGTAAAGTCTAAATAAGATTATGCTGCCCTCCCTCAGATAATGAGGGAAC
CTGGGGTACTTCTGGGCTACTCTGGGGGACAAAGTATAACTATTCAAATGGCAAGTTGAA
TTAGTACAGTCTAGGAGCCTTGAGATGGCTTCTTGAAAGAGGTAGAACCTGAAATTCCTC
CTTCCTTGAGGGACGGNCAGGATTTGGCCAGATGGAAGGCAAGTGGAAGGCTTTGCAGG
GACAAGCAATGTAANCAGANCCTAGAAATGG

Sequence 1108

TCGACCCCGCGTCCGGNGTAATTCTAGGGGAAATNATATTTCTGAACAACAATGTTGGTT
TGTGCAGGAAAATCACCAGAACATGACTAGAAAGTGATAGCTACAGTTTCCCTCTTT
TAAATGGGAATAGCAAAACATATAAAGAATATTGATAGGCCGGGTGCGGTGGCTCACGCC
TGTAATCCCAGCACTTTGGGAGGCCGAGGCGGCGAGATCAAGAGGTGAGGAGATCGAGAC
CATCATGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAATTAGCCGGGC
GTGGTGGTGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATGGCGTGA
ATCCGGGAGGTGGAGCTTGACGTGAGCCGAGATCGCGCCACTGCACTCCAGCCTGGGTGA
CAGAGCGAGAGACTCTGCCTCAAACAAAAAAGNNAANAAAAA

Sequence 1109

CCGTCTCTGGCTTGGCCAGGTTTAAATTAATAAAAATGAAGATGAAAATAAGTTGTCAGA
TTTAGGATGTATTTAGAAACCCAACCTGATAATTTGCCAACTAATTGGATGCAGAGAGTA
AGAGGGAGACTCAAGAACACCTCTAAGATTTTACCCTGATCAATGGGATAGGTGAAAGT
ACATTAATGGAGATTGAGAATCCTGGTGGAGGTACAAGTTTAGGGGTACTGAAGAGTGCT
TTTGGACATGTGAATCTTAGAAGCCTACTAGATTCTCCAAATGGAGACATAAAACATAA
TTGAATACAAAAGTCAGGAGTTTCAGGAGAGGGCTGAGCTAAAGATACAAATTTGATAGAC
ATGAGCATTTAAAAAACTGCATGAAAATACTAAAGATAGGCTGTCCTGCCTATGGAAT

TABLE 1
181/467

AGCCATTCTTTGATCCCTTTACTTTCTTAATAAACTTGGTTTCACCTTACTCTATGGACT
TCCCCCAAATTCTTTCTTGTGTGAGGTCCAAAACTCTCTGTTGGGGTCTAGATCAGACC
CTTTTCAAGTACATCTTCTGATGAACCACAAANGGATTATACTAAAGAGACCCCCCACC

Sequence 1110

CCGNAATTTGCTTATTCTAATTGAGACACANTGGTGGGGAGTGGGGGTGCGGGGACTACA
CAGGTGCATTTTCTGAACATTTATAAAATGAAAAAGATGGAGGCTTGGCTAGAATGGTTA
ATCCCCTTTTTCACTCTCTAATTCTATGACAATTTTTTTAAAAAACCAACACAACCAAA
ATAAGAGTGGACAGTTGAGAATTACCTTTAGGTTCCCATGACCCTGAAGACTGTATTTGG
CCTTGGATCCATTAAAAA

Sequence 1111

CCCACGCGTCCGCGGCCATTTCTGTATCCCCCTGCCTGGGTTTGCTGCCCTTTATGCTCC
TACCTCACCAGGTACAAGGAACATGAAGATGGCTATATGCGGCTGCAGCTGGTTCGCTAC
GAGAGTGTAGAGCTGACACAGCAACTGCTGCGGCAACCACAAGAGGGATCGGGCCTGGGA
ACGTCGCTGAACGAGAGCAGCCTGCAGGGCATTATTCTAGAAACAGTGCCAGGGGAGCCA
GGACGTAAGGAAGAGGAAGAGGAGGGCAAGGGTAGCGAAGGGACAGCCCTCTCAGCCTCT
CAGGACAACCCAGTTCTGTCTATCCACGTGGTGAATCAGACCAATGCCAAGGCCAGCAA
GAGATTGTCTACTATGTGCTGTCTGAAGCCCCAGGGGAGCCTCCCCAGCCCTGAGCCA
CCTTCAGGGGGCATCATGGAAGCTTCAAGGAATAGCTGAGGAGCCAGAGATCCAGATG
GTTTGAAGGCCGAGAGCCAGACCATTTCTTCCAGGTCTGAAAGTTTGAGCCAGGCAAG
TGGCAGTGCCCCTAGTGGGCAGCCGTTGCCAATGGATGCC

Sequence 1112

CCCCCGCGTCCGTAATTTTAAAGAACCTTGTTATTAGAAAATCTCAGCCTAATACAATCT
GAAGTTAAGAGTTTTAGCAGCATTGTTTTCTAAGTAGATTTAGCTATAGATTTCTTCT
GGCCAAACAAGGAAGAGTATATGCCCTTGTAATGAGTCTTGTTTTGTTATTTAAATAGT
CAGTCAAACGTAGAAATCAGTATACGTAAATAAAATGCATGAGACTATTAAATCTTTT
CATATACTCTACAAATAAAATGAAATCTGTGTGTGGTCCTGGTTGACTGGGCATCTAAAG
GGAATCAGAAAAGAGATTGTGAAAAGTTATATATATATCCTCTTCTTATTTTAGTTTTG
CTTTTTCTATTTTCCATAATTAAGTGCCGTTTACAAAGTGGCATCAAAAAATTGAAGCA
GGCCAGGCATGGTGGCTCATGCCTGTGGTCCCAGCAGTTTGGGAGGCTGAGGGCAGGTGG
ATCACTTGAGATCGGGGGTTCGTGACCAGCCTGGCCAACATGGTGAAAGCCCATCTCTAC
TGGAATATAAAAAATTAGCCCGCGTGGTGGCATGTGCTGTGGTGCAGCTACTTGGGA
GGCTAAGACAGGAGAATTGCTTGGGCCCTGGGAGGGGGAGTTCAANNNGNCCTGGANCGN
CCCCTGNNCTCNANCCCTGGCAACCANTGNNGACACCNCTTAAAAA

Sequence 1113

TCGACCCCGCGTCCGGTTTTTGTCCCAGCAGTGGCATTAAATTAAGTACTTTAAGAC
ATGGAATTGCTGGAGGCTTGAAACTTGAGTGCAATTTCCCTAGTACGACCTCCAAGGAG
AATAGAGCAAAACAGTGGTAGGAAAACTCTCAAATTTTACCCAATTGTATGTTTTCTA
CATTGTCAAGTATCTAGTTTTATATAGTTAATATGTACTTCTAAATTTCTGACAGTGNTT
GGTGTATAAAACAGACCAAGCTCAAGATGTAAAGAAGATTGAGAAATTCACANTCAACT
AATGCGACTTATGGTAGCCAAGGAAGCCCGCAATGTTACCATGGAACTGAGTGAATGGT
TTGAAATGAAGACTTTGTCGTGACTTAGGAAAGTAAATATCTTTGAATTAGAGAAAGTG
TTGGGACAGAAAGTACTTTATGTAACTAAGTGGGCTGTTCAGAAGCTTAGAGGTCAATTT
TTGTAATTTNTTTTAATTACTTTAGAAGAGCTAGGGATGCAAATGTTTTCAATTTGGA
AAGCCTTTATTTACTTTTTGGGAAA

Sequence 1114

TCGACCCCGCGTCCGATTCTTCTTCATATATTATGTCAGAAGAGTTTGAGAAGAAATGG
TATTAATTTCTTTAAATGTTAGGTTGACTCACCAGTTAATGCAGCTATTTGGTCATAA
ATGTTTCTTTGTTAATCACTTTCGATTACTAATCAATCTGCTAGGTTATAGGTCTATTC
AGATTTCTCTTTCTTCTGAGCCACTTTGGTAGTTTGTGTCTTTCTAGTGATTCGTCCA
TTTCATCCAGGACAGCTAATTTGTTGTTAGACAGTTGTTACAGTATACTCCTGTAATCC

TABLE 1
182/467

TTTTGTATTTCTGTAAAGTTGGTAGTAATGGCTCTGCTTTCATTTATTATTTTAATAATT
AGTCTTCCATCTTTTGCTCAGTCAATATAGTGAAAGGCTTGATCTTCAAATAATCTATG
TTTATTCATTCTACTGCTCTCCAACTTCTATTTTATTGATTTATGCTCTAATTATGCTC
TCTATTATTTCTTTCATACTGCTAGCTTTGGATTAGGCTTATTTTGNCTTCTTC

Sequence 1115

GCCCCGCGTCCGGGATGACTAATGAAAGCAATNAGCTTGAACATTTAGAAAAAATTCATA
TATGATCTAAATTTTTATATTATCATTTCTGTGCCTTCTAATTCCTGCATCCTGTTCAAA
ACATCTTTCCAGACATTAACTTACACATTGTATAAAACCGACCAAAATGATTTCCCTAAAG
TTCATGCAAAAAAAAAAAAAACAACCTAATTTTCTGTTAATATAAAAGAACTTCAGTT
TACTGACCGTGAAACAGACTATGTAAGTACATCCAGGGTAAAGTAAAGACTTTTAAATA
TTGGTCATTAAAGGACAGGAGCTAAGCTAGCAAAGCAAAACATCTTTAGCACTTTGCAGA
TCTCAAGCAGTTAACCAGGCTCTGATTCCCTTCCACTGTTTTATGAATTAATTCCAGTTC
TTTTCATGTATCTTTGAACCTAAGATTATGAAGTAATTTCCCTATTAGGGACTAGAATGA
CTTCAGTTTTTTTCATTTGATAAAATCAGAACTGCTACCTTTCCCTTTTTTAATGATGCA
AAATGTAGATGAGTGCATTAAGGGTTGTAAGGATCTTTATCATTTTATGNCATTATTGA
AAATTGAAATGTTTCATTCTTTTTAATGGTT

Sequence 1116

CNGCTTTCTGCTCTTCCCTTTNAAGTTGATACCCTTCTTTTTCTTGTCATTTTGCATTGCC
TGGGACCTCCAGAATAATGTTTCATGAAGTAGCATGTATCCATATCTGGTCTTGACTTT
TTCATCATTATAAATGTTTTCTATGGGTTACTTATCAGTTTAAGAATGCTTAATTCCTAG
ATGAACTAAGAGTGTTTATTACATGTTGAGATTTATGGTATGCTTTTTCTTCCCTCAAGAT
AATGCATTTTTTGTATTATCTGTTAATGTGATAGGTTATCCATTTGTGTATTTCAATCA
TTGAACAACCTTGATTTTTTTGGATAAACTCTATTTGGTCATTATGCATCATTCTATAA
ACCCTGCTGAATTTTTTCATTTGCCAACATCTTATTTAGATTCTTTAATCTGTGTCCAA
CAATGAGATTTGTTTTCTTTTGCAATTTGTTTTGAATTTTTGGTATCAGAGCTATACTAA
CCTTATAATGGAAAATACATATTTCTCAAACTTTTACACTGATATATTATAGTATTTTT
TTATAATTTGAAAAATCTTGTCAGTATCTGTATTAAGGCCCTNCATTTTCAGTTCTGCTATT
TCATATTGCCCTAAGGTGGCTATTTGGCTCTTTAAGGACCCCGATTTTGATTTTGTCTATT
TTAAAAATAAACCCCATTTATGCTATAAAAAAAA

Sequence 1117

GCCTTTTATGGTGATGGAATATGTCTCAGGAGGAGAGCTATTTGATTATATCTGTAAGAA
TGGAAGGGTAAGCTGTTCTGCTTTAATTCTGTATGTATTTGTNNCTNGNCCTTTATCCT
TTACTAGCATCAAAATGTCAGCAACCAATTTTAAAGAGGTCTATTTAATAACCAGTTCCT
TAGTCATATATTTGTTTGAATCATAACTATGTAGAAGTAAAGGATCTTAAAGATTA
TCTCCTTAGCCTGTTTATACAGATGTGGATACTGAGCCTCGCGGCTTATATGATTGCTCA
CAGTAACGTGATTTATTAATGACGGAATTGGCTTGAGCCCCAGAACTCATAATCCTCAG
ACTTATGCTTCCAGGGTATACAAATACTTTGAATATGTATCTTAATGTAATTAATCGTAC
CAAATATATTATTACT

Sequence 1118

GCGTCCGTTGTCATCTATTTACTTTACATATGTCATAAACCTAACACTACATGGTCATTT
TTGTTTAAACAGTCAATTACCTTTTAAAGGGATTTGAATAATAAGTCAAAATCTAATACA
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TCTGGCATTATTTTCTACTGCCAGAAGGACTTCCTTTAACATTTCTTGATGTAGATC
TGCTGGTGATGAATCTTTCAGCTTTTGAATTTCTTTGTCTTTGAAAGGTATTTTCCCT
GAGTATAGGTTAATAGCTTTTTCTTTTCACTACTCTAAAGATGTTGCTCCAGGCCAGGCG
CGGTGGCTCACTCCTGTAATCCCAGCACTTTGGGAGTCTTGAGGTGGGCAGAACACTTGA
GGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCCGTGCTTCTAACATAT
TAAAGAAAAAAAAGA

Sequence 1119

NCGTGACATGCTGGCTGCTAGTNAGCTCCCCCATGATTGTCAGCTTCCGAGCCCTCACTA
GAAGCAGATACCACCCACCACCATGTTTCTTTAAAGCCTGCAGAACTGNGAACCAATT

TABLE 1
183/467

AAAACTCTTTTCTTTATAAATTATCCAGCCTCAAGTATTTATAGCAACACAATAATGGCC
TAACACAACCTACAACCTCTCTATATGTATTTGTGTGTATTTAAAACATGCAGGAAATAAC
ACAGAATCCAAGGCACCCAAAACCTATTAATAAATGGAATCAAGAATTCATATGCCATTA
TGAAATTAGCCAGTCCTAAAATCTGACCTCTCTGCATTTTCACATTATTCTCCTCTCTCT
ATCCCTGCCTTCTCCCTCCCTTCTCCAACCTGTCAGAATTGTCCTGTAATCAAACATGT
TCACATCACAGCTTTTCATTTTCTATTTCCAATCAATTGACCAGTCTAGCCAAGTAGCAT
CCTGGATCCCGTATTACATATTCTAGGACAGGAAGCCAGATTTT

Sequence 1120

AGCTCTTTAGCAGGAGACAATTCTTAAACTTAAATTAAACTGAAAAAGCCACAGAAAAAA
GGGTTTGACACCTTAAAGCCAGTGTCCAAATGAACGCTACGGTTGNCCTCATAGGTGTGT
TATGAATGTTTACCCTGACCTCCTAGAAGAAAAGGAAAAAGAAAGGAAAGAGAGAGGGAG
AAGGTGAGGGAAGGGGGGAAGAAAAGAAAGGAGAGAAAAAGACAGAGAAAAAACAGGG
AGGGAGGAAGCTGGGGAAGGAAAAAGACCATTTGCTGACTCCGTTGTTTTATTTCCAGA
ATGATTCAATACCTCAAGAAGATTTCACTCCAGAAGTGTACAGAGTTTCTCAACAACC
TTTGCCCTCGACCTGAAATTGATAACATCTTTTCAGAATTGTAAGAGTACACATTTTAAG
CCATATCTTTTTAGCTTGCATTGATTCTCAGGTGGCTAGAGCAGGACTTGGAGTGGTAA
TTGGAGATGGAAGACATCATACACTGTGTCTAAA

Sequence 1121

CGGCCGAGGTACTATAATGGTCCCCATCTTAATTTGAAAGCGTTTGAGAATCTTTTAGGA
CANGCACTGACGAAGGCACTNGAAGACTCCAGCTTCTGAAAAGAAGTGGCAGGGACAGT
GGCTACGGTGACATCTGGTGTCTGAACGTGGAGAATTTCTTGCTCCTCCAAGGCACCAT
AAGAGAGAAGATTCTTTGAAAGCTTGGACTCTTTGGGCTCGAGGTCATTGACAAGCTGC
TCCTCTGATATCACGTTGAGAGGGGGGCGTGAAGGTTTTGAAAGTGACACAGATTCCGGA
TTTACATTCAAGATGCAGGATTATAATAAAGATGATATGTCCGTATCGAAGGATTTCCGC
TGTTGAGCCAAAGACTGCGTTACCCTTCAATCGTTTTTTACCCAACAAAAGTAGACAGCC
ATCCTATGTACCTGCCCG

Sequence 1122

CCCTTTGAGCGGCCNTNCGGGCTTNTACGCGGGGGCAGCGGGAAGCTCGCAGCAGCTGG
GGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGATACACCCAACTGGGAGAT
GAGGAAACAGCAACCCAGAGAGGAGAACTAACCCACACAGGATCATTTCCGGAAGGAGCA
AGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTACTGCAGCTTGAAGGAGCCA
ACCATGGATTGTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTACTATCAATACCAAATC
ATTAGCTGTGCTGTTTTAGAGCCCTGGGAGCGATCTATGTTTAACACCATCTTACTA
ACCATTATTGCTATGGTGGTATACACTGCCTATGTCTTTATTCCAATCCACATTCGCTG
GCTTGGGAATTTTTCTCAAAAATAT

Sequence 1123

CCCTTTGAGCGGCCGTCNCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACC
ACTTTATAGAGGGTGTAATAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGT
TCTGGGAGAGGGACCAGATTGGGG

Sequence 1124

CCCTTATTTTNGGCNTTNGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTAT
AGAGGGTGTAATAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAACTGCA
AAAAATTGCCAAAATGCNACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTT
GGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGG
TTTGGAGTCTGGAAGCCTNATCCCTTCANCATCAAGCTGGAATGGGGAATGAAGAATGGA

TABLE 1
184/467

NATGTGGTGCCCACTAGGCTACTGNTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTA
TTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTA

Sequence 1125

CCCTTANCGTGNTCNCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCAC
TNTATAGAGGGTGGGAAAATAAACCANAATCAAGGGAGAAAGAAAAGATGAAAGACAAA
CTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCAT
GTCTTGGCATTCCCTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAG
AGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCGTCAAGCTGGAATGGGGAATGAAGA
ATAGAGATGTGGTGCCCACTANGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGT
TGGTATTCAAAATATGTAATGGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATTGTTAACACCTGAATTG

Sequence 1126

CCCTTTCGAGCGGCCGCCGGCAGGTACTTTTTTTTTTTTTTTTTTTTTNNGGACTTGCG
ACAGTCCACCTTTTACTCTCATTGGTAAAATCTCCTTTTAATTATTAATAATTTGATA
AATTTATTAATTAAGTCTTTNATTCTTTGTAAATCAGAAGAGGACATTAATGTTGCGTG
TCTTGACTGTCTTTTTTGCTTTGTAGATTTATTTGTGCTAAATGAGAACGATATGCATG
TTTGTGNTTGATTTTTCCAGAAGCAGTTACTTTAATTCTTTTTTTAAGNGCTGATTTGT
TTTTGCTTAGGCATTAGTTTCTTCTCCTTTATAGNTTTTTCAAAATCAATTAATTCCT
TTATTTGTTTTGAAAGAAGTAAATTTGGGGTAATTTTTCTTATCACGCCCAATATGAAG
AGTTAAAAAATTACCACTGATTGCATTTCTTACTTAATTTGCAATCGATTTTACTT
CATCAAAAAAAGAATTTAANAATTAATTTACCTTGTTGAGGTCTTGGAATTTNCACGCC
CTCTAAGACGAAGAGCCACTTTTACTCTGCGTATCTAATAAAAAATTCTTTGGCTTTTTT
GCTT

Sequence 1127

CCCTTAGCGTGGTCGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCAC
TTTATAGAGGGTGTAATAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAAA
CTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCAT
GTCTTGGCATTCCCTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAG
AGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGA
ATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGT
TGGTATTCAAAATATGTAATGACTGGTATGGCAA

Sequence 1128

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TATTTCTCCTCTCCTGTTTTCACAAACCAAGAAATCCCAGGTAGGCCAATCCCAGAGGT
GCCATTTAGCAGTATGCAGCAGCCAGTTTCAGCATAACAAAACATGCCTTGGTAGTGGC
TCTCTCATGCAATAAAAGAAAGCTTAAGAAATCTTGTTGTAGGTGGATTAGGCAAGGC
TGCCATTGAGCTGGTATAAGCTAAAAGTAAAAATCAAAACGCTCAAGAAAACGGACACA
ATTTTGGAAATGATTAAGATGTCTTTATAAAGTTTTTTCAAGACTTCATTCTAAATACA
CAGAATAAAAAATGGGTGTCAGCTCACTTGTAAGACACCAACCAGATTTTCCTTATACTG
TCTCAAAATTTAAAGATCAATTTCCCAGAAAGGTGTNCAATGCATCATAAATGGCCCTT
TTTTGAGGATGGGAGAGGAAGGGTTGGGCAGGATGGAATATTAAATTGTACATGGATAAA
CATGCCAAGACTGTTATCCAATCTAGATAATTTATATACATTTTGATGACTTAAGGAAAA
CAAAGCAATCATTTGGTGACAGCCTAAAAAGCNTGACCNATTTAACATACTTAGGAAT
TTTTTNGG

Sequence 1129

CGTTCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCCTTTATAGAGGGTGTA
AAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCA
AAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCTC
AGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTG
GAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCC

[illegible]

GAANCAGAAGAAGGGGGCGCCACNAGGCTACNGCNGAAAGGGAACCGAAAAACCCCNCA
CCAANNAGGNATNCAAAAAANNGGAAACGGACCGGGNCANGGCAAAAAAANGGAACCAA
GACACCGGGCCCANACCACNGGACCANGGGNAANGGAAACACCCCGGAAATGGCAGGGN
CCCCGAANAGAACCCCAAGGGAGCCAGGGAAGAGGGACCCAAGATGGGGGGGGAAAGGC
CCACCGGGCCNGGGGNGAAANAACAAAGCCACCGAGGGCCAACCGNAAGNGGCCAANNGA
ACCCGGAACNANAAGGCNNAANCCACCCTGAAGNGGGAGGAAAAACCCAGGCGNGGGG
CCAAANANNAAAAAAAGCNGCCAAAACCCCAA

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CAANCGCCCNACAGCGAGNCGNAANACGCGCNGCCACNGGCCCGCGNANAAACAACGN
CGAGACGGGGAAAAACCCGCGCNCACCAACNGAAACNGCCANGCAGCACAAANCCNCAAN
CGCCAGCGGGCGGAANAGCGAAGAGGCCNCGCACCGAACGCCCANCCCAACAGNGGCGCA
ACAGAAAGGGCGAAA

[illegible]

CACGCGTCCGGAAAGGAGGGGAGGGGTGGGGCGGGCCGGATCTGCTCGCAGGCCCGCACCC
GCCTCCGGCTGGATGCTCAGAGTCTCGCCCTGATGGCCAGACTGGAGTGCAGNNGCGTGA
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CTCCAAGGAGCTGGCATCACAGGACAGGCACGGAGACTCACGCCTGAAATCCTAATACT
TTGGGAGGCCGCGGCAGGAGGATCACCTGAACCCAGGAGTTTGAGACCAGCCTGCCAACA
TGATGTTGTTATTCATGAGGACCAATGGGTTGGCGAGACAGTACTACAATCAACATTTAG
CAGTCAGTTATTAATCTTGGGAGTTATTCATCTATTCAGCCTGAAGAATATTCCAGTGT
AGTTAGTGATGTTGTACTTCAAGACTTACTGGCATATGTGTNCTCAAAACATTCC

TTACCCCGCGTCCGGGTAAACAAAACAAAGATCGTTTGTTCTGGAACAGGTAAAATGGT
AATCAAATAGATTGTGTTCCAGGAGTGCAAAGGTGGCTTAATATTACAAATCAGTTGCT
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TGTTCATTTATGATCTTAGCAAATGATGGATTGAAAGGGACTTCCTTAATTGCATAAACA
GACTTCAACAAACAGTATGATGAAATAGTGAACATTTCTCCTAAGATTATAAAAAATAAGA
CAAGGATATCTGCTGTCAATGATTTTATTGAGCATTGTTGAGAAGGACCTAACCCAGAAAA
CTAATGCAAGAAACAGAAACAAAAGGCATAAAGATTANAAAAGAAGTAAAATTTTAAAAA
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AA

TAGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGTACCAAATGAAGTGTG
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AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAG
CAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAAC

TABLE 1
187/467

AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATT
GGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTC
TTGAGAGAGCCCAAGGAGTTCTGGGGAGAGGGACCAGATTGGGGG

Sequence 1141

ATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCT
GAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATT
CCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAA

Sequence 1142

ATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCT
GAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATT
CCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAG

Sequence 1143

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACTCTATCCATCGTGGATA
GAGAACTGAAGCTCTCTAAAGACCCTGCAGCTGGGAGGTGGCAGAGTCAATGGCAGCCC
TCAGCCCTATCTGCCCTGACATGGCATTCTCTCCATTTCTCACCACCGAACCCCTCTAAAA
TAACATGTGTGGGGTCTTGGCTGAGAGACTTNCCTTTTGGGAATCAATCTGAATGTAT
GATGACAAAGAAAACAACCTTTGCTTTATACAACCTTCTGGTTAGATTCAGGCACCAAGC
AGGACACTTCTTTGTGGCGCTCCAAGAATCTTCAAATCTTCATCACCATAACAAATC
TTTCTGCTTCTCTAGAGCATCTTCTCCACAATTCTCACCCTCAATTAAGAGGCACTGGA
ACACTTCCAGCGGACAGGGTTTAGTGCTTTGATCTGTTCCGTCATGTCCTCTCCACGT
TGAAACGATTAATGACAGAATTTTTTTGGAGGCGACTCTATTAATCCCTACACCACCTN
CTCAGCTTTTGAAGGGTTTNCACATGGGTTCTTTT

Sequence 1144

GNAGCTCCCCGCGGTGGCGGCCGAGGTACGCCACCATGCCTGGCTAATTTTTGTATTTTT
AGTGGAGACGGGGTTTCACCATGTTGGCCAGGCTGTTCTCGAACTCCTGACCTCGTGATC
CACCCACATTGTCTCCCAAGTGCTGGGATTACAGGCGTGAGCCACTGTGCCATGAGGAT
TAGTAAAGTGCACTCATGGTAAGTAAAAAATTTGTTTTATGTTNATGCTGATTATATGA
AGGTCATCATAGCTTAGACACAATCAAACCCATGGGGAACATCTTAGAATTCATTTTT
CTCTTTTCTTACAAAAAAGTAAATAGGTAAAATGGAAAATAGAAGACAACCTATCCTAT
CCTGGATGAGACACACACATATTTAAATTGAATTATAGACTTAAATTTAAGTAGGGANT
TTTTTTTTNTGNGNAACAAAAGTTTNCAAAAAACCCAAACTTTTNAAGATCACCCAGTT
NTTGGAAAATATGATTATGAAAGCAGACTTTTTGGATGGGNGCTTAATGACATTTAGGCG
ACATTTAAATGCCCTAGGNGNGGGAACACTTGAAATTGCCANCTAAATTAATGACC
CTTTTAATTTGCCTGGACAACAAAAAANTTTCCATGATTTTGGCTTTTTTTGGAACAANN
GANNAAGAAAATTTTTTTTTTAG

Sequence 1145

CNATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACA
AGGCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAA
AGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATT
CTGAGGCTTTGCATGTCTTGGCATTCTTCANGAGCTGAATGAAAAATGCAACAAGCAG
ATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGA

TABLE 1

188/467

ATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGC

Sequence 1146

TTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCACGGTACTGTGTCAACAT
GCAAGGCCAGGTGGCCGTGAGGAATGTCCAATGACAGGCTCTATCAGTCATGTCCTGGT
GCAGCTCCACATGTCTTCCAGAGGATGGAAGCTGAAAACCTAGCTTCAGTGATTGATGC
CAGGTTTAACTTTTTGTGAACAAGATTTGCCACAGTATCGTGATGCAGTCATGTCTCA
CACGCTCATCTATATCCCCTCCTACTTTGACTTCGTGCGTCTTCGAAATTACTTCAAGAA
GGAGGAATTGAATTTTACCCACATCTGCGAGTACCT

Sequence 1147

CCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTNTTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGGGAGCCCAAGGAGT
TCTGGGAGAGGGACCAGATTGGGGGGTAGGTCC

Sequence 1148

TTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAGTTCT
GCGCAGCTTCCCCAGGGCTCCGCACCAGCCGCGCTTCTGTCCGCCTGCAGGGCATTCCAGA
AAGATGAGGATATTTGCTGTCTTTATATTCATGACCTACTGGCATTGCTGAACGCATTT
ACTGTCACGGTTCCTCAAGGACCTATATGTGGTAGAGTATGGTAGCAATATGACAATTGAA
TGCAAAATCCAGTAGAAAAACAATTAGACCTGGCTGCACTAATTGTCTATTGGGAAATG
GAGGATAAGAACATTATTCAATTTGTGCATGGAGAGGAAGACCTGAAGGTTGAGCATAGT
AGCTACAGACAGAGGGCCCCGGCTGTTGAAGGACCAGCTCTCCCTGGGAAATGCTGCACTT
CAGATCACAAGATGTGAAATTGCAGGATGCAGGGGGTGACCTTGCCCCGCTCTAGAAT
AGTG

Sequence 1149

TGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAA
AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGC
TGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTG
GACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCT
TGAGGGGAGCCCAAGGAGTTCTGGGAGAGGGACCAGATTGGGGG

Sequence 1150

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTG
TGAAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGA
NAAAGAAAAGATGAANGACAACTGCAAAAAATTGCCAAAATGCNACTTTCTAAAAATGG
AGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATTGAAAAAA

Sequence 1151

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTG
TGAGGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGA
GAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCTAAAATGCGACTTTCTAAAAATGG
AGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCA
ACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATC
AAGCTGGAATGGGGAACGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGG
AGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGA

TABLE 1
189/467

Sequence 1152

CCGCGGTGGCGGCCGCGAGTTACCTGACGTATGACAACCCAGATATCTTGAAGAGGGTGTG
AGGATCAAGATCAAATGTGTTTCATGAGGTTTAAAACAACCTGCCAAGGATGGCCTTTTGCT
GTGGAGGGGAGACAGCCCCATGAGACCCAACAGCGACTTCATTTCTTGGGCCTTCGGGA
TGGAGCCCTCGTGTTTCAGCTATAACCTGGGCAGTGGTGTGGCATCCATCATGGTGAATGG
CTCCTTCAACGATGGTCGGTGGCACCAGTTAAGGCCGTTAGGGATGGCCAGTCAGGAAA
GATAACCGTGGATGACTACGGAGCCAGAACAGGCAAATCCCCAGGCATGATGCGGCAGCT
TAACATCAATGGAGCTCTGTATGTGGGTGGAAT

Sequence 1153

GCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGAACTAAATTTTTTAACTTTA
TTTGCTGTAAATTTCTGTGAAGTTTCAGTTATCTAAAATAAATATACACAAATATGAAAT
ATAATGTTTCAGATTGCAAGGTAATATGTAATAGTAGTGTGTTGTAAGATACTCTTGCTA
ATATTAAGTAGTAGTATTTTGATTTGTACAATGTCACCTCCCAGCAACAAGAAGAACAA
GCTACTGAATCAGTGTCCCTTTATTACTATGGCATCAAAGATTTGGCTACTGTTTTCTTC
TACATGCTAGTGGCGATAATTATTCATGCCGTAATTCAAGAGTATATGTTGGATAAAATT
AACAGGCGAATGCACTTCTCCAAAACAAAACACAGCAAGTTTAATGAATCTGGTCAGCTT
AGTGCCTTCTACCTTTTTGCCTGTGTTGGGGCACA

Sequence 1154

GAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTA AAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGT
TCTGGGAGAGGGACCAGATTGGGGGGT

Sequence 1155

TGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAATGTGTGAAGACAAGGCCATCCA
CCACTTTATAGAGGGTGTA AAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGA
CAAAGTCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTT
GCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCANCAAGCANATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCAC
CAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGG
CCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGG

Sequence 1156

CCGCGGTGGCGGCCGCCCGGGCAGGTACATTGGCACGTACGATGTCTTGAGTTTCATTC
ACTAGGTGGCAGCCTGCATCGTTCCACTGCAAATGACTGAAATCCCAAAACACACAATGA
GGCTGGCTCAGGTTTGACTCTATCTTGGAAAAAATAGGAAAACCTTCATTTATGGAATAG
TTTTGAATAACCGTGGATATCACAGGTCCATTGACCTGAGCATTTCATTTTTTGAAACG
GGTAGAATGTTCCCAAGAGTCAACGAGGCCATGCTGATAATAGTTTCTGGAAGGGATCTC
TGGAATTGGTCTGACCCAATTAACACACGGCCTCTGATGGGAATAGATGTATTTTGGGGA
CACATTTTAATCTGATAGCTGTAACCCCTTTTGAGTTGGCTTTTGTTCACTGGAATCCCT
TTCCAGTCAATGAATTTCCGAGAAAAATTGAGAGGAAGAGCTGTGCGAGGCACCAGAGTG
CTGATGTTTTCT

Sequence 1157

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGCAGTGG
GAAGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGA
TACACCCAACCTGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCACACAGGA

TABLE 1

190/467

TCATTTCTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTAC
TGCAGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTC
TACTATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCGATCTATG
TTTAACACCATCTTACTAACCATTATTGCTATGGGTGGGTATACACTGCCTATGTCTTTA
TTCCAATCCACATTGCTGCTGGGCTTGGGAATTTTCTTCAAAAATATGTGGATATCACAG
GNCCTCGGCCCGCTCTAGAACTAGTGGGATCCCCCGGGCTTGCAGGGNAT

Sequence 1158

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGCAGTGGGA
AGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGATA
CACCCAATGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCACACAGGATC
ATTTCTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTACTG
CAGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTA
CTATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCCGATCTATGT
TTAACACCATCTTACTAACCATTATTGCT

Sequence 1159

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGCAGTGGGAA
GCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGATAC
ACCCAATGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCACACAGGATCA
TTTCGTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTACTGC
AGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTAC
TATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCGATCTATGTTT
AACACCATCTTACTAACCATTATTGCTATGGGTGGTATACACTGCCTATGTCTTTATTCC
AATCCACATTGCTGCTGGCTTGGGAATTTTCTCA

Sequence 1160

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCCTTTATA
GAGGGTGTAAAAATAAACACAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCANATTCTGAGGCTTTGCATGTCTTG
GCATTCCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTNAGCATCAAGCTGGAATGGGAATGAAGAATAGAN
ATGTGGTGCCCA

Sequence 1161

ACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGAAGGTGGGTGACGTGCGGA
TCTTCTTCTTTTGTGGCTGTGGACACCTTTCAACACTGCCTTCTTGGCCTTTAAGCCT
TCGCTTTGGCTTCAGCTTTAGGAGGGGCAGGAGCCCATCGCAAACCACGCTGCGGAGAG
AGGGGCGGGTAATGTAGCCCGTTGAACATGAACCAGAAGGAAAATGTTAAAGCTGAGG
GCACTAATTCTTACAGGCCCGGGGACATGGAGCTCCAACCAGTGGATGCATGTAGCTTC
CCAGAACCGAATGTCTGCCCGCGTACCT

Sequence 1162

CCGCGGTGGCGGCCGAGGTACCACTCTATCCATCGNNGATAGAGAACTGAAGCTCTCTA
AAGACCCTGCANCTGGGAGGTGGCAGAGTCAATGGCAGCCCTCAGCCCTATCTGCCCTGA
CATGGCATTCTCCCATTTCTCACCACCGAACCTCTAAAATAACAATGTGTGGGGTCTCT
TGGCTGAGAGACTTCCCTTTTGGGAATCAATCTGAATGTATGATGACAAAGAAAACT
TTTGCTTTATACAACCTTNTGGTTAGATTGAGGCACCAAGCAGGACACTTCTTTGTGGCG
CTCCAAGAATCTTTCAAATTCTTCATCACCATAACAAATCTTTCTGCTTCTCTTAGAGC
ATCTTCTCCACAATTCTCACCCTCAATTAAGAGGCACTGGAACACTTTCCAGCGGACAGG
GTTTAGT

Sequence 1163

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGA
CAAGGCCATCCACCCTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGA
AAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC

TABLE 1
191/467

AGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGA
AATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAGATTGGAC
TAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCT

Sequence 1164

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCNGGCACGGTNCCAAATGAAC
GTGTGAAGACAAGGCCATNACCACCTTTATAGAGGGTGTAATAATAAACAGGAAATCAA
GGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAA
ATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAA
TGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAG
CATCAANCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAA
AGGGAGCTGAAATTCCTCCACCAAGTT

Sequence 1165

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCATTTTCTTTNTCCTGT
CCATAATCTTCTCCACCACGTGGCTGTGTNCAAGACTCTCTGAACCTNCTCTGGCTCA
GGAGGCTTTNTAGATNTGTGAATTGTCTGCTCAGTNNACTCCATTAAATTNAATNTGGCC
AAGAANTTTCTTCTTAACAGNGGTATTGATGACCATTAACTCTCAACCTAACCTGCTC
ATTAA

Sequence 1166

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACCTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGAT
TCTGAGGCTTTGCATGTCTT

Sequence 1167

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAACAAGCGTTTGT
AATGTTTCCCAAATATTAGCTTTGAAATCCAAATGTCAAGCAGGTTAAAGTTCANAAAC
TATAATGTAATTGTTAATAAAACAATGGATGAAAAAAGTCATTGAAATTTTTTCTACT
TGGATTAAGAACATAAATTAAGTGCAACTGCAAAAAATAATATTAGTTTGATAAGTAAA
ATAAAACAACTAGATATATTTGAAAAATAAAAAACAAATGAAACAAAAATAAATTTAGG
TAAAGAAAATTCAACGTAATTTGTTGTAGCTATATTTTTGTAAATAATTACAAAAGTAGA
AATAATAGCTCATAAAGCAAAAACAAATTTATTTCTATGTTCTTTTTTCAGTCAATTCA
GAATTTTAGCTTCATATTTGAAGCATTTTTTTCTAATTTTGTGNGAATTTGAATTTGT
TTGCGGATTTTGATTTGCCATAAAATATTATATTNTATTTAATTATTAATCTTCGTC
AGCTTTAATTGCTCTTCTTTAAATTTGATCTGAAAT

Sequence 1168

CCGCGGTGGCGGCCGAGGTACCCTTGTCTCTTCTTCAGTGACTTAAACAATTCCAGGA
TCAGAAGAGAAGCCAACGTGACATCCTCGATAAACTGGGGATAAGCTGAAGTTCTGTCT
GTTACGAAGTGTTGAAAAACAATTCGAGATCCAGAAGTCCCTTGATGGGTTCCACAT
CCAGGTGTTCAAAAAAATCAGAGAATCTTTTTNAGGGGGTGGNCGCNTTAACCCTTTN
NGGTTNANTGAAAATCCCCCCCCCTGNTTTTTTTTGGAGAGGTTNAAAAATTTTTTTTNA
AAAAAAACCCCCCCCCCNNGGNATTNTNANTTTTTTTTTTNNNNNCCCCNNCAAAATTT
TTTTTTTAACCCCCCCCCCNAAAAAAGGGTTTTTTTTTTTTTAAAAAACCCNCNGN
TCNCCNNNCCANAAAAAANGGGGGTCCCNTTTTTTTTTTNTNNCCCCNNGGGN
TTTTTTTTTTTTTTNTCTNNNNNNGGGGGGGGGGAAAAAANAATTTTTTTTTTT
TGGNNGGGGGGGNNGCNCCNCCCCCNCGGGGGGGGNGGNTTAAAAAANGNCCCCC
CCNGGGGGGGGAANNANTTTTANTNNNTCCCCCCCCCNGGGGGGGGGG

Sequence 1169

CCGCGGTGGCGGCCGCCGCGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA

TABLE 1
192/467

GAGGGGTTTGGAGTCTGGAAGCCTCATCNCTTCAGCATCAACTGGAATGG

Sequence 1170

CCGCGGTGGCGGCCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCANATGAAGACTCTGA
GAGGGGTTTG

Sequence 1171

GNGGCGGCCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGG
GTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAAACTGCAAAAAA
TTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCAT
TCCTTCAGGAGCTGAATGAAAAAATGCAACA

Sequence 1172

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCATCTAGGTCTAG
TTAAGAAGAGTCTAGCTCAGAGAAAGCAAGCATTAAGGGAAAATGTCACGTAAACTAGATC
AGGGAACAAAATCCTCTCCTTGTGGAAATATCCCATGCAGTTTGTGATACAACTTAGTA
TCTTATTGCCTAAAAAAAATTTCTTATCATTGTTTCAAAAAAGCAAAATCATGGAAAATT
TTTGTGTCCAGGCAATAAAAGGTCAATTTAATTTAGCTGCAATTTTCAGTGTTCCTCAC
TAGGTGGCATTTAAATGTCGCCTGATGTCTTAAGCACCATCCAAAAAGTCTGCTTCATA
ATCTATTTTCAAGACTTGGTGATTCTGAAAGTTTTGGTTTTTGTGACTTTGTTTCTCAGG
AAAAAAAATATTCCTACTTAAATTTTAAGTCTATAATTCAATTTAAATATGTGTGTGTCT
CATCCAGGATAGGATAGGTTGTCTTCTATTTTCCATTTTACCTATTTACTTTTTTTGTAA
GAAAAGGAGAAAAATGAATTTCTAAAGATGGTCCCCATG

Sequence 1173

AGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCCAGGTGTTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC
CAACTGGGTTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGTCC
TTGCTCTCGCAGTGGCCCTGGCAGGCCAGCCTTCAGTTCAGGGGCTACCACCTGTGCGGG
GGCTCTGTATCAGCCCCCTGTGGATCGTCACTGCTGCACACTGTGTTTATGACTTGTAC
CTGCCCCG

Sequence 1174

AGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCNAGGTGTTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC
CAACTGGGTTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGTCC
TTGCTCTCGCAGTGGCCCTGGCAGGCCAGCCTTCAGTTCAGGGGCTACCACCTGTGCGGG
GGCTCTGTATCAGCCCCCTGTGGATCGTCACTGCNTGCACACTGTGTTTATGACTTGT
CCTGCCCCG

Sequence 1175

AGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTNNAGGTGTTTACAGCTGCT
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CAACTGGGTTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGTCC
TTGCTCTCGCAGTGGCCCTGGCAGGCCAGCCTTCAGTTCAGGGGCTACCACCTGTGCGGG

TABLE 1
193/467

GGCTCTGTCATCACGCCCCTGTGGATCGTCACTGNTGCACACTGTGTTTATGACTTGTAC
CTGCCCCG

Sequence 1176

CCGGGCAGGTACAACAAGCGTTTGTAAATGTTTCCCAAANATTAGCTTTGAAATCCAAATG
TCAAGCAATTAAGTTCAAAAACTATAAATGTAATTGTTAATAAAACAATGGATGAAAA
AAGTCATTGAAATTTTTTCTACTTGGATTAAGAACATAAATTAAGTGCAACTGCAAA
AATAATATTAGTTTGATAAGTAAAAATAAAACAACTAGATATATTTTGAAATAAAAAAC
AAATGAAACAAAATAAAATTTAGGTAAAGAAAATTCACGTAATTTGTTGTAGCTATATT
TTTTGTAAATAATTACAAAAGTAGAAATAATAGCTCATAAAGCAAAAAACAAAATTTATTCT
ATGTTCTTTTTTTCAGTCAATTCAGAATTTAGCTTCATATTTGAAGCATTTTTTCTAA
TTTTGTTGTGAATTTGAATTTGTTTGCGGATTTNGATTTGCCATAAAATATTATTT
TATTTAATTATATTAATCTTCGTCAGCTTTAATTGCTCTTTCTTTAACAATTTGATCTGA
AATTTGTTTGGTGTTATTTCATAGTGATCAAATTCATTTGATAAGTTCCACGACCTGA
TGTCATAGACCTTAATTGTGTTGAGTATCCAAACATTTT

Sequence 1177

TAGGGCGAATTGGACTCCACGCGGTGGCGGCCGCCCGGGCAGGTACCTACGGAAATCCT
AACTACCACTGGCAGGAACTGCATATNTTCTGGTTTACATGAAGANGGAGGGCTAANGG
AAATGCCCAAAACCTTCAGAGATTGACACCGCTGTCATTNTCCATNTCNGTTCCTGGAAT
CTACCGGGAGTNTNATAAGAAGANTTTTGCAAATNGAGGGAAGAAGCAATTGTTTTCAA
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CCATGGAGGGCCCCCTCAGNGTNTCTGGATCAGGTTCAAGAAATNGAAATGNTTTTCACCC
AAGNCANGACCCCGGCCATGTGGGCATGNTCCGGGTNCCTGGGGGTGGCNTCGNCTGGCT
TGTGGCGAANGAACAATTAAGCCCCTTTTAAGTTTATTGAAGCCCTGNGGGGAAACTTTA
AGGGGGTTTTCCANAGTTGGGGGANGAAGCANTNGGNNAGTTGGNGAAGGGCATTTTGGGG
GGG

Sequence 1178

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGC
CATCCACCACTTTATAGAGGGTGTAATAAATAAACCAGAAATCAAGGGAGAAAGAAAAGAT
GAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGA
GGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGA
AGACTCTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGG
GGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTC
TCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGAC
ACTGGCCATACCACTGGACAGGGTTATGTAAACACCTGAATTGCT

Sequence 1179

CCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTNTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGG

Sequence 1180

CCGCGGTGGCGGCCGCCCGGGCAGGTACCTATTGCCAGGAAGATAGGCAGCTCATCTGTG
TCCTGTGTCCAGTCATTGGGGCTCACCAGGGCNCNCAACTCTCCACCCTAGACGAAGCCT
TTGAAGAATTAAGAAGCAAAGACTCAGGTGGACTGAAGGCCGCTATGATCGAATTGGTGG
AAAGGTTGAAGTTCAAGAGCTCAGACCCTAAAGTAACTCGGGACCAAATGAAGATGTTTA
TACAGCAGGAATTTAAGAAAGTTCAAGAAAGTGATTGCTGATGAGGAGCAGAAAGGCCCTTC
ATCTAGTGGACATCCAAGAGGCAATGACCACAGCTCATGTGACTGAGATACTGGCAGACA
TCCAATCCCACATGGATAGGTTGATGACTCAAATGGCCCAAGCCAAG

TABLE 1
194/467

Sequence 1181

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGG
CCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGA
TGAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTG
AGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATG
AAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATG
GGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTC
CTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGA
CACTGGCCATACCACTGGACAGGGTTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGA
GCCAAGGAGTTCTGGGAGAGGGACCCAGATTGGGGGGGTA

Sequence 1182

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACCAAATGAAGTGTGAA
GACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAA
GAAAAGATGAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCA
GATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAA
GCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGC
TGGAATGGGGAATGAAGAATAGNAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGC
TGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTG
GACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAA

Sequence 1183

TCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAA
GACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAA
GAAAAGATGAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCA
GATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAA
GCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGC
TGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCT
GAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGG
ACTAAGACACTGGCCATACCACTGGACAGGGTTTATGTTAACACCTGAATTGCTGGGTCT
TGAGAGAGCCCCAAGGAGTTCTGGGAGAGGGACCAGATTGGGGGGTAGGTCCCGGGCTTGG
TGATAGAAATATTTCTCGATGACTTTCTTGAGTGCAATTTGNACTGTAACATTTGCTTAA
TCACCTT

Sequence 1184

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGATAGTCATCTCAGTAAAGGTCTAT
TATCTAAGTTGCCAACTTGTTTACTGAGAGCCCTAAGGAACTAAACNCCATAATGCC
GTGCACAGNTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAGTTTN
CTCAAGCAGGCCTGGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAA
TAGCAATAGCAATAAGAAGAATGCCATCCATGGAGCACACCATAATTCTGGAACCACT
NTCCCGGATCAGGCTTCCATTGCTCACGATGCTCACGCTGGGCAGCCGCAACTNTACTTT
GCAGAACCTCACCAACTTGCCCAGGTNTTCTCCCGGTCTTGAAGAAATGGCTCTCCACC
TGAAAAGTNNGATCTTCTCATACCAGCTTCTTAAGCAAAAGCAATCCTCTCTTTGCTTC
CTCAAGGGGCA

Sequence 1185

TAGGGCGANTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAA
GGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAA
GATGAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTC
TGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGA
TGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCNTTCAGCATCAAGCTGGAA
TGGGGAATGAANAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAAT
TCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATG

Sequence 1186

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGG

TABLE 1
195/467

CCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGA
TGAAAGACAAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTG
AGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATG
AAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATG
GGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTC
CTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGA
CACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAG
CCCAAGGGAGTTCTGGGAGAGGGACCAGATTGGGGGGTA

Sequence 1187

CCGCGGTGGCGGCCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGT
TCTGGGAGAGGGACCAGATTGGGG

Sequence 1188

CCGCGGTGGCGGCCGAGGTACAAGATANTCATCTCAGTAAAAGGTCTATTATCTAACTTG
CCAACTTGTTTACTGAGAGCCCTAAGGAACTAAACTGCCATAATGCCGTGCACAGCTT
GAAAAGCAATTAGAGTAAGCAAGATTAGTTTTTCTCCCTTTCNAAGTCCTCAGCAGGCC
TGGCTGAAGGCCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAATAGCAA
TAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACTCTCCCGGATCAG
GCTTCCATTGCTCACGATGCTCACGCTGGGCAGNCGCAACTCTACTTTGCAGAACCTCAC
CAACTTGCCAGGTATTCTCCCCGGT

Sequence 1189

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAG
TGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGG
GAGGAAGAAAAGATGAAAGACAAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAAT
GGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATG
CAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAG
GGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAA
AGAATTGGACTAAAACACTGGCCATACCACTGGACAG

Sequence 1190

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGGCGAAGCTAGA
GACTGTAACCTGAAGATTGGGACAAATTAAGAAAAAAATGTGATTAAACACAATTACAA
AACTGTTACGTTAGGGTCAAACAAGAACCATTTTATGAACTGAATTACAACAAATGAC
ATTATATCTAACTCTTCCGGGTCTCCACAACACTTATACTTACTTAAGCAGCTTAAACAC
TTCCGAGTCTCCACAGCACTCTGATACTTACTTAAACAGCTCTTTAACCTGCCCTAGTA
TTCTTAAGTGCAGCATATCTAATTTTTTTTTCTCAAGTAGTTTGAA

Sequence 1191

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGNCAGGTACCAAATGAACGTGT
GAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAG
AAAGAAAAGATGAAAGACAAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAA
CAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCA
AGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGA
GCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGAT
TGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAA

TABLE 1
196/467

Sequence 1192

CGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGAC
AAGGCCNTCCACCACTTTATAGAGGGTGNAAAAATAAACCAGAAATNAAGGGAGAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCANAT
TCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCC
GATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGG
AATGGGGAATGAAGAATAGAGA

Sequence 1193

TGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCT
GAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGGAAAAATGCAACAAGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATT
CCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAG
ACACTGGCCATACCACTGGACAG

Sequence 1194

NGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACATAAATCACCTGGAACCTTG
TTAAATGCAGATCCTGACTCAGGAGGTCTGAGTTAGAGCCCAGGATTNCATATTTCTAG
CCAGCTCCATGATGAGCTGCTGGTCCGCAGATCATGCTTGCGGTTTTGACCAGAGTCAG
TGTTGGTTANAGTAAGAGGATGAGGCANACATNTGGGAAAAGTCCAGCTGGGGCAAGCAT
TTGAAGTCTGCCTTCCTACCANGTCAAAATCAAGGCAACGACCTTCCATAGATAACTATC
AAAGCTTGAGGGGGNGCCTTGAACCCAACCTCTAAATCCCTAAGACCTGCCACCTCTTG
TGCTCCTGTNTNAGCAAACATTCCCACACTCTTGATATTGTTAAAAGTAACCTCTGCT
TACCAGGCTTTTG

Sequence 1195

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGGGGGTGTCCGAACAAGGCAGGTTG
GTGGGTAAAGGTCTTAATCTTGACTCGAGATCTCTCTCCGGAGTTCACAGNGTNGGCGAC
GAAGCCGAAGCAGCTGGAGCGCGACCCGGAGGAGTCTGACTTCTCGTTGTCTTCATAATT
TTCATTGTTGCTTTCTTCGTGGACTTGCGGCTGGGGGAGGATCCCCGCTGGTCGCCGAG
CAGGCGGGCGGGTAAAGGTAGGCCGCCGAGAGCGAGGTTAGGAGAGGAGAGGAGGCCGCA
GTACCT

Sequence 1196

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAGGAGGCGGAAGCGC
AGCGGGGGCGGGAAGGTTGTAGTGCCGCGAGTTGAGCTCCTCTTGCCTAAGTGGTCGCGC
CCCCTTTAAGAGCAGCGATTGTAAGGAGAGGCGGTCCCGGTGTCCTCGGGTCCCAGGTGA
TTGTGAAGTGCTGACCAATTGCCACTGGACATACTTGAACAAAAATAGGAAAATGGCAGC
AAACCTGTCTCTAAATCAATCAATCAAGCGAGCCAGAATGCAGTAGTGGCCTGAGAGAG
GCATCCTGGAACGCAGTGCGGTCTGGCTAGGCTTAGAAGTATTCATGTGATTTTACCTG
ACAAGGG

Sequence 1197

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAA
AGAAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGG

Sequence 1198

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAGAGCG
AGCTTCGGAGAAGCAGTGGTGGGTCCATGTGGTGGTGGAGTAGGAGGCAGGTCTCCGCG
GTGGTTTCCACAAGAAAAATGGCACAATGTTTCTCAGAAGACAATTACATAAGAATCAGC

TABLE 1
197/467

ATACTTTAAATTCACAGCAAATAATCAGACAATTGATGAAAATACTTACCCAAACACTAA
TTGTAGACTGTGCCTTCTGAATATGTTTTGTCATAAACTTGGAGTAAGGAATCCTCACAG
GCACTGGACAATTCAAAAAACGTAAAGTTTGTGTTAGAATACCTGGGTGCTTTTGGAT
AGAAACCCTCATCCATATCCTGGTAAGGCTTGAAGTTGCACAGGAGTTTTCATTTGTCAA
AACCCAGAAAACCATAAGCTTTAGATTTGGG

Sequence 1199

CCGCGGTGGCGGCCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTNTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTTTGA
GAGGGGTTTGGAGTCTGGAACCNATCCTTTACNTTCAACTTGAAATGGGGAATGAA

Sequence 1200

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAANTGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCATAAATCAAGGGAGAANGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAAATGCNGACTTTCTAAAAATGGAGCAGANTC
TGAGGCTTTGCATGTCTTGGCATTCTTCAAGAGCTGAATGAAAAAATGCAACANGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCNTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATATAGATGTGGTGCCCACTAGGNTNCTGCTGAAAGGGAGNTGAAATT
CCTCCACCAAGTNGGTATTCAAATA

Sequence 1201

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGGCACGGTACGCGGGGGTAAC
TGAAAATCCACAAGACAGAATAGCCAGATCTCAGAGGAGCCTGGCTAAGCAAAAACCTGC
AGAACGGCTGCCTAATTTACAGCAACCATGAGGCCACTTAAGGATGCAGCAAGAAGGAGC
CATCTGCAATCCAGGAAGAAATTCCTTGCCAGGAACCAAATTGGTTGTCACCTTCATCTA
GGACTTCTAGCCTCGAGAACTTACAAATGGTGATGATCAT

Sequence 1202

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCATAAANNAAGGGAGAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCANAT
TCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCA
NATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGG
AATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAA
ATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAAG

Sequence 1203

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGGCAGGTACAATATAAAATAATA
CATATGAAGCCACAATATTCAATTACAGTTCAAAAGTAGAAATTACTAACTACATGTAGCT
GCTTCATTTTTCGTTTTGCATTTTGGCCCCAATTCATATTTACAACTGATACCTGCTGA
GAAAAAGATCCAACTTTTAACTTTGTATGTTTTGTGGAGGGTGCACAATTTCTTTCTAA
TATATCTTCAGGTGTTTTAAATTTAATTTGTTTTAATCATAAGATATCATCATGGCCA
AGAGACTGGGAAAATAACAATTTTATTCTTTCTCCTAAGATTGNGATTTTATTATTCCAA
GATCTTATGCTTGAATTACTTAGCAAGAAGGCATGATTATGCANAAGACAGGGAAATGAA
GAGAAAAGAGCGGGAATATACGAAAATGAAGCTTCCTTAACAGAGTTCATGGTGGAGATG
GTAGACACTGGTGGAGTTTTTTTCCAGACTTAA

Sequence 1204

TCGAGCGGCCCGCCCGGGCAGGTACACTCTAAAGAAAGCCATGAGGATGATAATCCACTTT
GATACTTCCAATCTGCTGGTCTTGCTGAACTCTTTGGATCATGGATATCATAAGTTGAC
AAAATATTTTTTTGTAGAAGCACAAATGTGAAGNGTCACTCGTTCTGAGACTTCCTCCT
CTGTGAAATTCACAATCTCTTTCTATTTATAGACTTTTCCACAGCAAACATTAGTCTAC
GCAGAGCATTTTGAAAATCATTTGCCAGTTCTAAAGTAGTAATAATAAATACTCCAAGAA
CTAAAAGTCCCCTGGTAGCATTCTGGATACCTGGCAGGCATGTTCTGTGGCCCATTC

Sequence 1205

TABLE 1
198/467

NNGNCCTTTTCGAGCGGCCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCC
ACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAG
ACAAACTGTAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTT
TGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAAT

Sequence 1206

AGCGTGGTCGCGGCCGAGGTACATAAACATTATTCCTTCCTTGGCCTAAAACTCATCG
CCACCTACATTAAAGCTAATATGCCTGATTACTGTTTTTAGAGAACTATTTTATTAGGG
CAGTTCCAAGCTCAAAAATACGCTAACTGGCACCTTGNTAGCTACATAAAAATGCACCTT
AGACCCGAAACTTACTAGACTCATTATAAAATTTTCTTTAAGGTGTCCACGCAGTCCCTG
GTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTACCCAGTAATCCCCAGAAGGAAC
TTACACTTTTTTTAATCTTTTCTACAACCTTCATATTTTATAAATA

Sequence 1207

CCCTTAGCGTGGTCGCGGCCGAGGTACCATCTAGGTCAAGTTAAGAAGAGTCAGCTCAGA
GAAAGCAAGCATAAGGGAAAATGTCACGTAACTAGATCAGGGAACAAAATCCTCTCCTT
GTGGAATATCCCATGCAGTTTGTGATACAACTTAGTATCTTATTGCCTAAAAAATA
TTTCTTATCATTGTTTCAAAAAAGCAAAATCATGGAAAATTTTGTGTCCAGGCAAATA
AAAGGTCAATTTAATTTAGCTGCAATTTCAAGTGTCTCACTAGGTGGCATTAAATGTC
GCCTGATGTCATTAAAGCACCATCAAAAAGTCTGCTTCATAATCTATTTTCAAGACTTGG
TGATTCTGAAAGTTTTGGTTTTTGTGACTTTGTTTCTCAGGAAAAAATATTCCTACTTA
AATTTTAAGTCTATAATTCAATTTAAATATGTGTGTGTCTCATCCAGGATAGGATAGGGT
TGTCTTCTATTTTCCATTTTACCTAT

Sequence 1208

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCAC
CACTTTATAGAGGGTGTAAAAATAAACAGANATCAAGGGAGAAAGAAAAGATGAAAGAC
AACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCANATTCTGAGGCTTTG
CATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCANATGAAGACTCT
GAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGA
AGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCA
AGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATTGG

Sequence 1209

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATA
AACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGNCAAAATG
CGACTTTNTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAG
CTGAATGAAAAAATGCAACAAGCAGATGAAGACTNTGAGAGGGGTTTGGAGTCTGGAAGC
CTCATCCCTTNAAGCATCAAGCTGGAATGGGGAANGAAGAATAGAGATGTGGTGCCCACTA
GGCTACTGCTGAAAGGGAGCTGAAATNTCCTTCCACCCAAGTTGGTATTTCAAATATGT
NATTGACTGGATANGGGCAAAAAGGATTTGGACTAAGACACTGGGC

Sequence 1210

GCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAACGGCCATCCACCACTTTATAG
ACGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAATTTGCCAAAATGCGACTTTCTAAAAATGGAGCATAATTCTGAGGCTTTGCATGTCTT
GGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCNGATGAAGACTCTGAGAGGGG
TTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGA
GATGTGGNGCCCACTAG

Sequence 1211

CGGAAANTTGGGGGGCCCCCTTNCTTAAGAAAAGGCCATTGGCTTNCCGAAGGCGGGGGC
CCCGCCCAAGTTGGTTGGAANTGGGGGATTATTNCTTTGGCCAAGAAAANTTTCCGGGG
GGNGTTTTNAAGGGNGGGGGGGGGGGCCCCCCCCGGGGCCCCCAAAAGGGGTNAACCCCCC
TGGGGGGNAANAGGGGGGGGAAANNTTTNNNAAACCGGNNAAAAACCCCCCAGGGGGGG

TABLE 1
199/467

CCCCCGGGGGGGGAAAAANCCCCNNGGGGGGAAACCCCCCGG

Sequence 1212

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGT
GAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAG
AAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAA
CAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCA
AGCTGGAATGGGGAATGAAGAATAGAAGATGGTGGTGCCCACTAGGCTACTGCTGAAAGG
GAGCTGAAATTCCTCCCCAAGGTTGGGTATTCAAATATGTAATGACTGGGTATGGCAAA
AGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCT
GGGTCTTGAGAGAGCCAAAGGAGTTCTGGGAGAGGGACCAGATGGGGGGGTA

Sequence 1213

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTG
GCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTAT
TCAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTG
G

Sequence 1214

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGCGGCAGGTACCAAATGAAG
TGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGG
GAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGTCAAATGCGACTTTCTAAAAAT
GGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATG
CAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAG
GGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAA
GATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAAT

Sequence 1215

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGA
CAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGA
AAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC
AGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGA
AATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAA

Sequence 1216

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTG
AAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACCTTCTAAAAATGGAG
CAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAAC
AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGGAATGAAGAATAGAAGATTGTGGTGCCCACTAGGCTACTGCTGAAAGGG
AGCTGAAATTCCTCCCCAAGGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGA
TTGGACTAAGACACTGGCCATACCACTGNCAGGGTTATGTTAACACCTGAATTGCTGGGT
CTTGAGAGAGCCNAAGGAGTTCTGGGAGAGGGACCAGATGGGGG

Sequence 1217

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTG

TABLE 1
200/467

GCATTCCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCCAAGTTGGTATT
CAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGG
CAGGGTTATGTTA

Sequence 1218

CCGCGGTGGCGGCCGAGGTACTTCTTACAGTCTTCAGGAAATTCATTAAATCAGTGCCTC
CAGTTCCTTTGGCTTCCAGTTTTGAAGGGTCTTCAGAGGTCTTATTCTCCTTTGGCTGCT
GGCTTGCAAGGAATCAGGATGTACTGTTCTGTTGGCCGAGTGGAGACTGGNGTTCTCAAA
CCCGGNATGGTGGTCACCTTTGCTCCAGTCAACGTTACAACGGAAGTAAATCTGTGCGAA
ATGCACCATGAAGCTTTGAGTGAAGCTCTTCTGGGGACAATGTGGGCTTCAATGTCAAG
AATGTGTCTGTCAAGGATGTTCTGTCGGGGCAACNTTGTGTTGACAGCAAAATGACCCA
CCAATGGAAGCAGCTGGCTTCACTGCTCAGGGTGATTATC

Sequence 1219

CCGCGGTGGCGGCCGCCCCGGGCAGGTACCCTGATGCTACAGACGAGGACATCACCTCACA
CATGGAAGCGAGGAGTTGAATGGTGCATACAAGGCCATCCCCGTTGCCAGGACCTGAA
CGCGCCTTNTGATTGGGACAGCCGTGGGAAGGACAGTTATGAAACGAGTCAGCTGGATGA
CCAGAGTGCTGAAACCCACAGCCACAAGCAGTNCAGATTATATAAGCNGGAAAGCTTATT
GATTANAAGCAATGNGCNTTTCCGATNTGATTGATNNGTNAAGNAACTTTTNAAANGTN
ANCCCTGAATTNCCNNNACCCAATTAATTTTTNANANCCCTTTAAAAAATTTTNCNTNG
GGNTGGGGCCCCCCCCNAAAANTTAGGGNANAAAAAATATNAAANCCCCNNAAAATATTTT
NNNTTNTTTTCTAAAAAAAATAAAAAACCCNCCNTTTTTTGGGGGGGGCATTAAAAAGG
GGGAAAAAAAATTCGAATTTTTNCCCTTTTCNTTTANCCNAAAAAAAAAAAAAAT

Sequence 1220

CCGCGGTGGCGGCCGAGGTACATTGGCACGTCACGATGTCTTGAGTTTCATTCACTAGGT
GGCAGCCTGCATCGTTCCTGCAATGACTGAAATCCCAAAACACACAATGAGGCTGGC
TCAGGTTTGACTCTATCTTGGAAAAAATAGGAAAACTTCATTTATGGAATAGTTTTGAA
TAACCGTGGATATCACAGGTCCATTGACCTGAGCATTTCATTTTTGGAAACGGGTAGAA
TGTTCCCCAGAGTCAACGAGGCCATGCTGATAATAGTTTCTGGAAGGGATCTCTGGAATT
GGTCTGACCCAATTAACACACGGCCTCTGATGGGAATAGATGTATTTTGGGGACACATTT
TAATCTGATAGCTGTAACCCCTTTTGAGTTGGCTTTTGTTCAGTGAATCCCTTCCAGT
CA

Sequence 1221

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAATGAAGTGTGAAGACA
AGGCCATCCACCACTTTATAGAGGGTGTAATAAATAAACCAGAAATCAAGGGAGAAAGAAA
AGATGAAAGACAACTGCAAAAAATGCCAAATGCGACTTTCTAAAAATGGAGCAGATT
CTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAG
ATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGA
ATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAA
TTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGGTATGGCAAAAGATTGGACT
AAGACACTGGCCATACC

Sequence 1222

CCGCGGTGGCGGCCGCCCCGGGCAGGTACCAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAGGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATGNAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCCAAGG
TTGGGTATTCAAATATGTAATGACTGGGTATGGCAAAAGATTGGGACTAAGACAC

Sequence 1223

CAGTCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAA

TABLE 1
201/467

TGAANGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAA
TCAAGGGAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCT
AAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCNTTCCTTCAGGAGCTGAATGAA
AAAATGCAACAAGCAGATGAAGACTCTGAGAGGGTTTGGAGTCTGGAAGCCTCATCCCT
TCAGCATCAAGCTGGGAATGGGGG

Sequence 1224

CCGCGGTGGCGGCCGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATAC
CACTGGACAGGGTTATGTTAACACCTGGAATTGCTGGGTCTTGAGAGAGCCCAANGGAGT
TCTGGGGAGAGGGACCAGATTGGGG

Sequence 1225

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTG
GCATTCCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAACAGAA
GATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGGTTGGG
TATTCAAATATGTAATGACTGGTATGGCAAAAGATTGGGACTAAGACACTGGCCATAC
CACTGGACAGGGTTATGTTAACACCTGAANTGCTGGGGTCTTGAGAGAGCCCAANGAGT
TTNGGAGAGGGCCAGATGGGGGGGTAG

Sequence 1226

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATA
AACCAGAAATCAAGGGAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATG
CGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAG
CTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGC
CTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAAGATGTGGTGCCCACT
AGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAAT
GACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTT
AACACCTGAATTGCTGG

Sequence 1227

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCAGGAAGTGAAGTAAAA
CCTGGTCTTGGTTGATAGGCCCCAGGTTGGCTTGGAGCCATTCCAGGTTGAGAGGCAGGA
GCCACAGTATAATTAGTAGGCTGAGAAGTTTGGGCAGTGAAGTTTGTGCAGGATAATTG
CTCGCCTGGTACTCTTGAAGTCCACCTCGTTGTCCCTGTTGCTGTCCAAGTTGCTCATC
AGCTTCTGGAAAGCAGCTTCACCTGTCCTTTTCCCAAGAAGCTGGGCAGCTCCCGGGTC
AGCAGCTCCTTTAGTTCTGACTTGTTGAGCTTGAACCTGTCACCCTCTTGCCCGAGTAC
CTGCCCC

Sequence 1228

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAA
AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGAAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGGTATGGCAAAAGAT
TGGACTAAGACACTGGCCATACCACTGNCAGGGTTATGTTAACACCTGAATTGCTGGGTCT

TABLE 1
202/467

TTGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAAATGGGGGG

Sequence 1229

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCAAATGAAGTGTG
AAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAATNAACCAGAAATCAAGGGNGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAG
CAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAAC
AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATT
GGACT

Sequence 1230

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGGGGTCTTC
TAGTCCGGTAAACAGAGGGCCTGCCCCGACAGCTTCTGCTTCCGGGTACGCCTTGACA
GCGGCTTTCAACCCCCACCTCAGCCCAGCAATTCGTTTGGAGCATGTGAACACCTTGAGC
CTTGATGAGTTCAGTNTGTGGTATATTATGCAGNGCNTTCAGNGAAAATNCTTTTNTN
CGGGNNTTNAANNAAAAAANANTNNGGTGCCATGNTNTTNNCCCCNNNNNTNNGGGGGGG
GCCCCCTCAAANGGGGGGGGGNACTATNANNNNCCCTNTTTTGGGGNNCNAANTNN
ACNCCNTTNTTNGGGCCCCNTTTTGGGGGNAAAAAAACCCCCCTNNGGGGGGG
GTATTTTNTTTTNGAAAAAAAGGCCCGGGGNGACCCCCCNGGTGGGNTTAN
ANAAAAAAANTCNCNNNTTNTTTTTTTTAAAA

Sequence 1231

AGGTACGCGGGGCTTTCCGTGCTACCTGCAGAGGGGTCCATACGGCGTTGTTCTGGATT
CCCGTCGTAACCTAAAGGGAAATTTTACAATGTCCGGAGCCCTTGATGTCCTGCAATG
AAGGAGGAGGATGTCCTTAAGTTCCTTGCAAGCAGGAACCCACTTAGGTGGCACCAATCTT
GACTTCCAGATGGAACAGTACTCTTGGAAGTCCACCTCGTTGTCCCTGTTGCTGTCCAAG
TTGCTCATCAGCTTCTGGAAGCAGCTTCATCTGTCTTTTCCCCAAGAAGCTGGGCAGC
TCCCGGGTCAGCAGCTCCTTAGTTCTGACTTGTTGAGCTTGAACCTGTCACCCTCTTG
CCCGAGTACCTGCCCC

Sequence 1232

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGGAAA
CAAAAAGGAACCAGAGGCCACTTGTATATATAGGTCTCTTCAGCATTATTGGTGGCAGA
AGAGGAAGATTTCTGAAGAGTGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGAGAAT
TGCACTGCAACCATGAGTGAGAACAATAAGAATTCCTTGGAGAGCAGCCTACGGCAACTA
AATGCCATTTACC

Sequence 1233

GCNATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACCAAANTGAAGTGTGAAGACAAGGCC
ATCCACCACTTTATAGAGGGNGTAAAAATAAACCAGAAATCAAGGGAGAAAAGATG
AAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAG
GCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAA
GACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTNATCCCTTCAGCATCAAGCTGGAATGG
GAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTNCT
CCCCAAGNTTGGTATTCAAATATGTAATGACTGNTATTGGCAAAA

Sequence 1234

GCNATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTAATAATAAACCAGAAATCAAGGGAGAAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC
AGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGA
AATTCCTNCCCAAGTTNNGTATTCAAATATGTAATTGCTGGTATGGCAAAAGATTGGACT
AAGACACTGGCCCTACCACTGGACAGGGGTATTNTTTAACCCCTGAATTTGCTTGGGT

TABLE 1
203/467

CTTTGAGAGAGCCCCAAGGGGGTTTTGGGAGAGGGGACCCANAATTGGGGGGTAGGTC
Sequence 1235
TGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGGCCATCCA
CCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGA
CAAAGTCAAAAAATTGCCAAATGCCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTT
TGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACT
CTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAAGATGTGGTGCCCACTAGGCTACTGCTTGAAAGG

Sequence 1236
TGGACTCCACCGCGGTGGCGGCCGAGGNACAATACACTAGAAACCAACATAATGTATTTT
TTTTAAACCTGTGNGAAAAATAAATGTTCCACNAGTAGGGATAGGGGAAAAGNAACCA
AAAGAGAGAAAGAGAAAGGAATGCTGGTTNATCTTTGTANGTNGTAATCGAATGGAGAAA
TTTGAGTATTTTANCCACTATTAGNGAAATTTTTTTTTTTTTTGTCAAATGANAGACT
GGAACCTCTGTTCAANATGCTTTNATTGNAACTCTGGTTTTGAAGACCGGGNNNGNAAA
GCAANNAAAAACGTNGGGAACCCCTNNGATGGACNTAAAGGGGCNNTGNNGCCAAAGGG
ACCTTGGGGGAAAANGGTCCACTTTGAATANANAAGCATGGGGNNGGGNGNATTTTTCCC
CCCCCTTTTAAAAANATGGTNTGGAATAATTTTAAANNNGGNATATTAATAACACCTTT
NTT

Sequence 1237
GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTGTGATATCCACATAT
TTTCGATAAAAAATCCAAAGCCAGGCGAATGTGGATTGGAATAAAGACATAGGCAGTGTA
TACCACCATAGCAATAATGGTTAGTAAGATGGTGTTAAACATAGATCGCTCCAGGGCTC
TAAACAGCACAGCAGCTAATGATTTGGTATTGATAGTAGAGCCAGGAGAAATATTCCTT
CACACGCCTCAAATCCATGGTTGGCTCCTTCAAGCTGCAGTAAGTTTGTCTAAGAAAGT
CCAGGTCTGGTTCTTCAGCCTTGCTCCTTCGCGAAATGATCCTGTGTGGGTAGTTCTCC
TCTCTGGGTTGCTGTTTCTCATCTCCAGTTGGGTGTATCTCCCTGCGGCTTAGGTGAG
CGCCGAGGCTTTGGC

Sequence 1238
AGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGA
AGACNNTGGCCATCCACCCTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAG
CAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAAC
AAGCAGATGAAGACTCTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGGTATTCAAATATGTAATGACTGGTATGGCAAAAGAT
T

Sequence 1239
AGCTCCACCGCGGTGGCGGCCGAGGTACGCGGGGGGCAGAAGAGGAAGATTTTTGAAGAG
TGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGAGAATTGCACTGCAACCATGAGTGA
GAACAATAAGAATTCCTTGGAGAGCAGCCTACGGGNACTAAAATGCCATTTACCTGGA
ACTTGATGGANGGGAGAAAACTCCTTGGAATGATTTTGAAGACAAAAGTTATTTTTACC
CGGCACTGAAGATTTNCAGCAATCCGTTGGAATNTCAAAGGCCACCAAANGGTGCCAA
CNCCTACATGNGCNCCTATCNTAAANAGGCACCCCTCCAANAGGGGGNCNAATAAACGNA
GGGNCNAAGNNCCCTGGGNAAATTGGCCTTTACNGGNTAAAAAGGCCTTGGANNGGAG
GTTTTAAANTNCCTACGGCCAAAGGNAAGCCATTGGCNTGNACCCCAAGGGCCAAGGAAA
AATCCANNTAAAAAGNTTCTTGGNGTCCACCCNTGGGG

Sequence 1240
AGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGG
CCATCCACCCTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGA
TGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTG
AGGCTTGCATGTCTTGGCATTCTTTCAGGGAGCCTGAATTGAAAAAA

TABLE 1
204/467

Sequence 1241

AGCTCCCCGCGGTGGCGGCCGCCCCGGGCNNGGTACGCGGGGGAGACATTCCTCAATTGCTT
AGACATATTCTGAGCCTACAGCAGAGGAACCTCCAGTCTCAGCACCATGAATCAAACCTGC
CATTCTGATTTGCTGCCTTATCTTTCTGACTCTAAGTGGCATTCAAGGAGTACGGGAAGG
CGAAGAAAAGAATAGAGAAGATAGGGAAATTAGAAGATAAAAACATACTTTTAGAAGAAA
AAAGATAAATTTAAACCTGAAAAGTAGGAAGCAGAAGAAAAAAGACAAGCTAGGAAACAA
AAAAGCTTAAGGGGCAAAAATTGTACCTTCGGCCCGCTCTAGAAGTGTGGGATCCCCCG
GGCTGCAG

Sequence 1242

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAATGAAGTGTG
AAGACATGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAA
CAAG

Sequence 1243

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGC
ACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCAT
CAAGCTGGAATGGGAATGAAGAATAGAGATGTGGTGCCCACTANGCTACTGCTGAAAGG

Sequence 1244

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAATTGCCAAAATGCCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCCTG
GCATTCCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTAT
TCAAAATATGTAATGACTGGTATGGCAAAA

Sequence 1245

TGGTACTGTCTAAAGTCATGACAGCCCAACAGGTGATGTTTTACTGGATGAAACTCTGAAA
CACATCAAAGCAACTGAACCCACAGAACTGTCCAAACATGGATAGAGCTACTCACTGGT
GAGACCTGGAACCCCTTCAAATTACAGTACTGTTCTGTTGGCCGAGTGGAGACTGGTGT
TCTCAAACCCGGTATGGNNGTCACCTTTGCTCCAGTCAACGTTACAACGGAAGTAAATC
TGTCGAAATGCACCATGAAGCTTTGAGTGAAGCTCTTCTGGGGACAATGTGGGCTTCAA
TGACAAGAATGTGTCTGTCAAGGATGTTCCGTGCTGGCAACCGTTNCTGGTGACAGCAAA
AAATGACCCCAACAA

Sequence 1246

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTGCATGTCTTG

Sequence 1247

AGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAA
AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGQATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
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CTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATT

TABLE 1
205/467

GGACTAAGACACTGGCCATACCACTGGACAGGGTTTATTGTTAACACCTGAATTGCTGGG
GTC

Sequence 1248

GAGCTCCCCGCGGTGGCGGCCGNGGTACATAAAACATTATTCCTTCCTTGGGCTAAAAAC
TTTTGCCACCTACATTAAGCTAATATGCCTGNTTACTGTTTTAGAGAACTTATTTA
TTAGGGCAGTTCGAAGCTCAAAAATACGCTAACTGGCACCTTGTTAGCTACATAAAATG
CACCTAGACCCGAACTTACTAGACTCATTATAAAATTTTNTTTAAGGTGTCCACGCG
NCCCTGGTCACACTTGAAGCAGTCCGGAGAAATATNAGCCCTACCCAGTAATCCCCAGA
AGGAACTTACACTTTTTTTAATCTTTTCTACAACCTNCATATTTTATAAATAAAAAGAC
ANAAATGTCAGGCCTGTGAGCTGAAGCTTAGCCAT

Sequence 1249

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACGCGGGGAGTGG
GAAGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGA
TACACCCAACCTGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCCACACAGGA
TCATTTCTGTAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTAC
TGCAGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTC
TACTATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCCGATCTAT
GTTTAACGCCATCTTACTAACCATTATTGCTATGGTGGTATACACTGCCTATGTNTTTAT
TCCAATCCACATTCGCCTGGCTTGGGAATTTT

Sequence 1250

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGC
CATCCACCACTTTATAGAGGGTGTA AAAATAAACCAGAAATCAAGGGAGAAAGAAAAGAT
GAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGA
GGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGA
AGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGG
GGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCC
TCCACCAAGTTGGTATTCAAATNTGTAATGACTGGTATTGGCAAAA

Sequence 1251

CTNCTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAA
GACAAGGCCATCCACCACTTTATAGAGGGTGTA AAAATAAACCAGAAATCAAGGGAGAAA
GAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCA
GATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAA
GCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATGGAAGAATNGTGGTGCCCACTAGGCTACTGCTGAAAGGG
GAGCTTGAAATTCCTCCACCAAGTTTGGTATTG

Sequence 1252

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATCTTGAGAAGGATTT
GAAGGACAAGTTTGTGGCCCTGACCATAGATGATATCTGCTTCTCGCTCAACGACAACCTC
ACCAAACATCAGATATTCTGAGAACGCCGTGAGGATTGAGCCAACTCCGTGAGTCTGGA
AGACTGGTTGGACTTCTCCAGCACCAATGTGGAGAAGGCTGACAAGCAGCGGAACAACCTC
CCTGATGCTGAAAGCCCTGGTGGATCGAATCCTGTCCCAGACAGCCAATGGATCTGTGCA
AGCCAGTGTGATTGTGGTGGACACCGGCATTCAAGAATGGGCCTGAAGGGATCAAAGGGA
TGCCAGGGACAAGCTGGGCTTGATCATCTGGCCCAAGGTATTNGGAAAGAGATTGCTTCC
CAGGGAAGAAAA

Sequence 1253

ACTNAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTA AAAATAAACCAGAAATCAAGGGAGAAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC
AGATGAAGACTCTGAGAGGGGTTTNGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCT
GGAATGGGGAATGAAGAANGNAGATTGGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG

TABLE 1
206/467

CTGAAATTCCTCCCCAAGGTTGGTATTCAAAAATATTGTAATGAACTGGGTATTGGCAA

Sequence 1254

CCGCGGTGGCGGCCGNGGTACAATGATTGTCATCTCAGTAAAGGTCTATTATCTAACTT
GCCAACTTGTTTACTGAGAGCCCTAAGGAACTAAACTGCCATAATGCCGTGCACAGCT
TGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCTCCCTCCAGTTCTCAGCAGGCC
TGGCTGAAGGCCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAATAGCAA
TAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACCTCTCCCGGATCAG
GCTTCCATTGCTCACGATGCTCACGCTGGGCAGCCGCAACTCTACTTGCAGAACCTCAC
CAACTTGCCAGGTATTCTCCCCGGTCTTGA

Sequence 1255

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCATGGTACGCGGGGG
GGTGGAGAGAGGCCTCTAGACTTCAGTTTCAGTTTCCTGGCTCTGGGCAGCAGCAAGAAT
TCCTCTGCCTCCCATCCTACCATTCACTGTCTTGCCGGCAGCCAGCTGAGAGCAATGGGA
AATGGGGAGTCCCAGCTGTCTCGGTGCCTGCTCANAAGCTGGGTTGGTTTATCCAGGAA
TACCTGAAGCCCTACGAAGAATGTCAGACACTGATCGACGAGATGGTGAACACCATCTGG
GACGTCCTGCAGGAACCCGAACAGTTCCCCCTGGNGCANGGAGTGGCCATAGNGGGCTCC
TATGGACGGAAAAAC

Sequence 1256

TGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAANGGCCATCCA
CCACTTTATAGAGGGTGTAATAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGA
CAAAGTCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTT
TGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCT

Sequence 1257

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACA
AGGCCATCCACCACCTTTATAGAGGGTGTAATAAATAAACCAGAAATCAAGGGAGAAAGAAA
AGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGAT
TCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCA
GATGAAGACTCTGAGAGGGGTTTGGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTG
AAA

Sequence 1258

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACCTTTATAGAGGGTGTAATAAATAAACCAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGC
AACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGAAGATTGTGGTGCCCACTAGGCTACTGCTGAA
AGGGAGCCTGAAATTCCTCCCCAAGGTTGGGTATTCAAAAATATGTAATGACTTGGTATG
GCAAAAAGATTGGGACTAAAG

Sequence 1259

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCTTTGTTT
TGGCACACTTTTCTGACAAACAGCCAGTGTTCTCAATACATAAATACTAGTCCACGTTA
ACAAATAGCATATGAGACCGCTCTCCGTAAAGATGCCAGATTGGATGCAAAATGGACTG
GAAATACCTTGGAGGGTTTCAAAAAATAAGACAAAGGGCAAAGGAACTTTGCCAAAGGA
GATGGAGAGCAATTCTTTAAAGATAGTGGGAGGGAGGAAGCAAAGAGCTCATAAATACAA
GCCTCTTAAATGGGACGCATTTGCCTCGCGCTCTGGGGTGTCTGCAGCTCAGCNTTGG
TGCCCCACACGGGACACCCGACTTTT

Sequence 1260

TABLE 1
207/467

TAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTTCAATGTCATT
AACCATAAATGAGCATTTACAATCTGGATTAAATGTCACATGGTATTAAGTCTACACTTA
GAGTAATGCTTTTACTGATTTTTAAAAATATATGCATATGTTTAGTGATCGAGAAAAGTG
AAATACTGGAGTACTTTTTTTTTTTTTTTTTTTGGCTTGATGAGTAGGTGAGTTTATT
GGGACTTACACACAGGTCAATCCTGGGCGGCGACAAGACAGCTCTAGAGATCTGAGCTTC
CTCCCAATGCTAAACTGCTTTCATGCTAATTTTCTGACTGTTTACTTACCCGGGGTAAGA
GCGATGGGGACTGTTTTTATTGG

Sequence 1261

TNCTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACCTTATAGAGGGTGTAATAAACCAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTCATGTCTTGGCATTCCCTCAGGAGCTGAATGAAAAATGC
ACAAGCAGATGAAGACTCTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGGAGATGTGGTGCCCACTAGGCTACTGCTGAAA
GGGAGCTGAAATTCCTCCACCAAGGTTGGGTATTCAAATATGTAATGACTGGTATGGCA
AAAGATTGGG

Sequence 1262

TGGCGGCCGCCGGCAGGTACGCGGNGCAGAAGAGGAAGATTTCTGAAGAGTGCAGCTGCC
TGAACCGAGCCCTGCCGAACAGCTGAGAATTGCACTGCAACCATGAGNGAGAACAATAAG
AATTCCTTGGAGAGCAGCTACGGCACTAAATGCTTTCACCTGGAAGTTGATGGGAGGG
AGAAAACCTCCTTGGATGATTTTGAAGACAAAGTATTTACCGGACTGAGTTTCAGAATCG
TGAATTCAAAGCCACAATGTGCAACCTACTGCCTATCTAAAGCACCTCAAAGGGCAAAC
GAGGCAGCCCTGGAATGCTTACGTAAAGCTGAAGAGTTAATCCAGCANGAGCATGCTGAC
AAGGCAGAAATCAAAGTCTGGTCACCTGGGGAAA

Sequence 1263

CGAGGTACCCAGGCCTGCAAATCTCCTGGCAGGATGGTCAGGAAGTCTCTAGCACCAGC
AGTTCCAGAATCTGTTCCCTGGTATGGATCTCTGGCTTCAGCCACTGACAGCAGAGCTCC
CGGAGGCGGCTCAGTGCCCTCGCGAGGTCCAGGAGAATCCTGGTAGCAGAACTGCCTAAAA
AGCTGCCTGCAGAGCTCCTGCTTAAGGAGTTCACTTCTCTGTAAGCAAGTGCTCTGCCA
TGGATAAATTCCTCCTCTTCTATCTTCACTATCAGAAGTCTTCATCCTCTGGAGAGTTC
TGGGCTGCAGCTTCTTTGGTTCTGTAGCCATCTCTCGGACAGGGCTGATTCCGATCGGA
CACTTCCGGTGAAGGACTGAGCGGCGCTACACTTCAAGAATCCGTCCACAGGGAGTTG
TGAGTCTGCGCAGAAGGCGGGATGCCTTTGACTACGATTCCAAGAATCCTCCTGGGTC
TCTTCGGGCGCAGACTTTTCGCCAAAGTCTGAAGATCTCAGGGCTTGAAGGAGGGGGCA
TCCTTCTTCTTATTGNAGTAGTGTGCTTGTCTAAATAACAGAAGGGACTCCTGAAAAGA
AAATGACGTTGGCCCCGGCGCGGGGGCTTACGCCTGCAAGTCCACACTTTGGGAGGCCGA
ACNGGCNGATCACGAAGGTCAGGAGATCGANGACTATCTGGGTTACGCGGNGACACCCTG
NGTTTCTTAAATCCANAAAAAAAAAAAAAAAAA

Sequence 1264

GGCGAATTGGACTCCACCGCGGTGGCGGCCCGAGGTACAGAGATTTATAATGTGCTGCTC
TAGGTCCTATCGGGTAAAGGGATCAGCAGATGTGAAGTCAAGAGTCTCCTGTAAGATTTG
ACTTCTTGGAACATATTTAATCCTGGGCCTCCTNTTCAAATCACCTATTTCTTTA
GTTTTTGCAGTGATACTGTGTGTTGCTTCTAACAGAGGTTCAAGTTTACAGCCTTTCCC
TCAAGTGTCTTATCCTAAAAGTAAACCTAGATGATCTAAGGTGGTGGNTTCAACAGGG
TGCAATTTGCCTCCTATACTCGCAACACCCAGNGACAGTTGGCTATGTCTNGGAGACAT
TTTTGNGTTNTCACACCTGGANNNAGGGTGGGGGAGGTGGNGCTAATGACANCAAGNTGG
CCNTAANCCAATNATGCTGATANAAATNCTACANTGCACAAGGATAGGNTCCACANAAC
ANAAGNCTTANCCAAACCCCAATACTAACAAT

Sequence 1265

CCGCGGTGGCGGCCCGAGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTT
GCCAAACTTGTTTACTGAGAGCCCTAAGGAATAAACTGCCATAATGCCGTGCACAGCT

TABLE 1
208/467

TGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCTTCCAGTTCCTCAGCAGGCCT
GGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAATAGCAATAGCAAT
AAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACCTCTCCCGGATCAGG
CTTCCATTGCTCACGATGCTCACGCTGGGCAGCCGCAACTCTACTTTGCAGAACCTCACC
AACTTGCCAGGTATTCTCCCGGTCTTGAAGAAATGGCTCTCCACCTGAAAAGTTGATC
TTCTCCATACCAGCTTCTTAAGCAAAAGCAATCCTCTCTTTGCTTCTCAAGGGGCAGC
ACAAAGGATGTTTTGGCTGTGTGGAACAGAAGCCCGCATTTGTAGTTGCACTGGCGAGT
GAAGTGATAGTTGACGCTGGTGGGGTGGT

Sequence 1266

CCGCGGTGGCGGCCCGCCCGGGCAAGGTACTTGCTAACTTTGACGCCAGCATCTCTGAAAG
ATCCCCATCGAAGGCCGGTCATTGCAAATACAGGCTGTTCTTTTACCCTTGATCTGCA
AGACATCAAGTGGAAGTGTCTCTCTTTACAATGGCAAGTGTTGGCATCAGTAATATGTT
GGACTTTGTTTCCACTTTCCGCAAAGAGGGTATGACTCAAACCTACTGGTCTCTCCAGTG
GGATAAATCCAATGGGAATCTTACTGAAGGTAGCCTCATCTGTTCTGTCGAAGAACACCAA
GTAACAACCTNCTGCAGTGTCCCATCTCCTTCTGNAACAATGGATCACATTCGGNGTT
TTCCATCAGTTNCAAGGAGGTTTNTTNGGCTTGGGCCCTTAANAAATCTGNGCTTAAACA
AAAAGGCCCNATTCTTCCCAAATAAAAANGGAAAAANTCGGGGGCCNCAATTTTTTTT

Sequence 1267

CACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGT
GAAGACAAGGCCATCCACCACCTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAG
AAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAA
CAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCA
AGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGA
GCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGGTATGGCAAAAGA
TTGGACTAAGACACTGGCCATACCACTGGACAGG

Sequence 1268

GGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACCTTTATAGAGGGTGTAATAA
ACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGC
GACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGC
TGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCC
TCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAG
GCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGA
CTGGTATGGCAAAAGATTGGAATAAGACACTGGCCATACCACTGGACAGGGTTATGTTAA
CACCTGAATT

Sequence 1269

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTCTACAG
AGATCCTGAAGAGATTGAAAAAGAAGAGCAGGCTGCTGCTGAGAAGGCAGTGACCAAGGA
GGAATTTCAAGGTGAATGGACTGCTCCCGCTCCTGAGTTCACTGCTACTCAGCCTGAGGT
TGCAGACTGGTCTGAAGGTGTACTCTTGGTTTATCAATGGGACGTTCCAGCAATCCACAC
AAGAGCTCTTTATCCCAACATCACTGTGAATAATAGCGGATCCTATATGTGCCAAGCCC
ATAACTCAGCCACTGGCCTCAATAGGACCACAGTCACGATGATCACAGTCTCTGGAAGTG
CTCCTGTCTCTCAAGCTGTGGCCACCGTCGGCATCACGATTG

Sequence 1270

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACCTTTATAGAGGGTGTAATAA
AACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATG
CGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAG
CTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGC
CTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGGAGATGTGGTGCCCACT
AGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAAT
GACTGGTATGGCAAAAGA

TABLE 1
209/467

Sequence 1271

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCTCAT
TTTTATTTTAAAAACCATTCAGCACATTTATCTTATGTAACATGCAGAGCATATATCTAT
CTGTATTTTAAAAATTTTCTGTACTCATTGATACATAGTACTTCCTTGATGTTGTTGG
AGTCCGTGAGAAACATGGCGACTCGATCAATGCCCATGCCCCAGCCAGCTGTGGGGGGCA
GCCCATATTCCAGGGCAGTACTCAAAGGTGATATTTGCTTTTTTCAATGCTTCAGGGGAA
AAATCCTTTTCTTTA

Sequence 1272

TAAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAANGACA
AGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAA
AGTGAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATT
CTGAGGCTTTGCATGTCTTGGCATTCCCTTCAGGAGCTGAATGAAAAATGCAACAAGCAG
ATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGA
ATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAA
TTCTCCACCAAGGTTGGTATTCAAAATATGTAATGACTGGGTATGGCAAAAGATT

Sequence 1273

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGTGGTGACGTGGTTCCCAAAGATGTC
AATGCTGCCATTGCCACCATCAAAACCAAGCGCAGCATCCAGTTTGTGGATTGGTGCCCC
ACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTG
GCCAAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAA
AATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAA
AATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCTCA
GGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGG
AAGCCTCATCCCTTCAGCATCAAGCTGGAAT

Sequence 1274

ATCCCCGGCGNNGGCNNNNCGCCCGTTCAAGGTAATCTTTGTTTTGGCACACTTTTCTGAC
AAACGCCAGTGTTCTCAACACATAAATACTAGTCCACGTTAACAACAATAGCATATGAG
ACCGCTCTCCGTAAAGATGCCAGATTGGATGCAAATGGACTGGAAATACCTTGGAGGGTT
TCACAAAAATAAGACAAAGGGCAAAGGAACTTTGCCAAAGGAGATGGAGAGCAATTCTTT
AAAGTTAGTGGGAGGGAGGAAGCAAGAGCTCATAAATACAAGCCTCTTAAATGGGACG
CATTTGCCTCGCGCCTACTGGGTGTCTGCAGCTCAGCTTGGTGCCCCACACAGGACACCG
ACTTTAAGTGGCTGCCTTTGCAAGGCTGAGAGGCCATGGAGGGGTTGATGCCTGAAGTGT
CAGCGCCATCTAGTGGAACATGGGGCATGGCCC

Sequence 1275

GGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCC
ATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATG
AAAGACAAACTGCAAAAAATTNCCAAATGCCGACTTTCTAAAAATGGAGCAGATTCTGA
GGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGA
AGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGG
GGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTNC
TCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAA

Sequence 1276

AGGTACAAAATTATCATCATTTAGAGTTGATTTTTTACCAGCCCTGAATTTTCAAAC
TGTAATATGCTGTTTCACAATCTTTTTATTAATTAATGATTCCAGTCTGCAAAAT
GAGCCATAAGACTTTGCTNCTGTTTGNATANGATNCATNTGGANATTGGGGGNGGGNAA
ACCATANGTAAGGTTAAACCTATCCGTACCTGCTTCATGTAAAGACTCCACCATTTGN
TTGGATNTATTTTTTCTCCAGGCNACTAGTAAGAAAAAAGGTGAACAAAGGTGGATTN
CATCCCTNNCAAANTGGGCCCTTNTGGCNCAATTCTTTTTTCANTAATCCTATGGTANAC
CNNTTTGTAGATTACCTTGGTGGTNGAATTTNAGCNGTNTTGGNGGCNTAATTNNNA
AAAAATCTTTGGGGATTTAAAAATTTAAANCAAAAAAACCAACCAATAAAANTTCTAA
TCCACCCNTGNGGAAATATTTTGGAAAAGGAAAAATTTTCAGGTTAAAAAACAAAGGG

TABLE 1
210/467

ANTGGNTGGTTCCTTCCATTAGGTTTAAAGGGGAGGAGGNANNATTAAAAAAATTAAAA
AAATTGGTTCATTTTAAAACAAGGTTTNGAAATTTNAAGGGAA

Sequence 1277

AGGTACAAAATTATCATCATTTAGAGTTGATTTTTTTACCAGCCCTGAATTTTCAAAC
TGTAATATGCTGTTTACAATCTTTTTATTAAATTACTTAATGATTCCAGTNTGGCAAAT
GAGCCATAGACTTTTGCTCTGCTTGTTATAAGATCANTTGAATTGGNGGGGGGGANAA
CCANTAGTTAAGNCTAAATCTAATCCGGTCACTTGGCTTCATTGTAAAAGAACCCACAA
TTGGTCTGAATTAATTTTTTGGCCAGGCACCANGAAAGNAANATNGNTGTACCAAAGNTN
GAANTACATTCCTTGGCAAANTGGGGCCCTCTTGGCCCAAATCCTTTTTTCCAATTATC
CTTATTGGTTAAACCCCTTTTTTGGTTAAGTNTNACCTTGGGTGGTTGGAATNTTTAAA
GCCGNGCTTGGNNGGCCTTAATTTTGGTAAAAAATTTCTTTTGGGGGATTTTAAAATTTA
AACCCAANAANAACCANACCAANAAATANTTCNTNATTNCACCCCTTGGGGNAAATTNA
TTTTGGGAAAAAGGAAAAANATTTTCAAGTTTAAAAAACCCAAAGGAANTGGGTNGTTCC
TCCAATTANGGTNTTAAAAAGGG

Sequence 1278

AGGTACATTTACACAATATTAACACTAAAAATCTGTGTTTTTTTAAAACACCATAGAAGT
CAAACCACAAAAACCCAGGATCTTGTTTTAAATGTGTTTATGAAGACTGCTGCTGAGCTC
AAAAGCATTGCAGGTAATCATGACCACCTAGATGAAAGCTGGATGTTTGAAAACTCCTTC
ATGTCCAATGAATGTAAATTTTTTCACTCATCCCCAAGGTATTCTCCCATACTTTGTTT
TACTTTTGACCTTCTTTTTTTTTTGGGNCACCTCTTTTCATGGCATAAGGGCCTNGACT
TGAGGGGGTACAGGTTCTTTTNGTGGTNTAAAAGGAATTACTTTTCATTAATGAACCTC
CTCCTTGGTTTCCTTTAATTTCCCTTTAAATTTTCTTCAATAATTGGTAAATNATTTT
TTTTTCNTTTTTTAAGNGGACC

Sequence 1279

NCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGA
CAACGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAG
AAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAG
ATTCTGAGGCTTTGCATGCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAG
CAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCT
GGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTG
AAATTCCTCCACCAAGGTTGGTATTCAAAATATGAATGACTGGTATGGCAAAAGATT

Sequence 1280

GTGGCGGCCGAGGTACCAANTGAAGTGTGAATGACAATGGCCATCCANTANTTTATAGAG
GGTGTAAAAATAAACCAAGAAATCAAGGGAGAAAGAAAGATGAAAGACAACTGCAAAAA
ATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTTGCATGTCTTGGC
ATTCCTTCAGGAGCTGA

Sequence 1281

CCGCGGTGGCGGCCGCTCGGGCAGGTACCATTCCTCTACATCCATTTGGTAGCAGAACCT
CAAGTGTAAGCAGTCAGTGTAGCATGAATATGAACTGGCTCAGTTTATCACTTCCTGTTT
NGACCTGAAGCACCACCCAGCTATGCAGAAGTGGTAACAGAGGAACAAAGGCGGAACAAT
CTTGACCCAGTGAGTGCTTGATGACTTTGAGAGAGCCCTTCAAGGACCACTGTTTGCA
TATATCCAGGAGTTTCGATTCTTGCTCCACCTCTTATTTCAGAGATTGATCCAAATCCT
GATCAGTCAGCAGATGATAGACCATCCTGCCCTTTTGTGGAAGGAACACTTGTTGA

Sequence 1282

GAGTCCCCGCGGTGGCGGCCGCGGCCGAGGTACATAAAACATTATTCCTTCCTTGGCC
TAAAAACTCATCGCCACCTACATTAAAGCTAATATGCCTGATTACTGTTTTTAGAGAACT
TATTTTATTAGGGCAGTTCCAAGCTCAAAAAATACGCTAACTGGCACCTTGTTAGCTACAT
AAAAATGCACCTTAGACCCGAAACTTACTAGACTCATTATAAAATTTTCTTTAAGGTGTC
CACGCACTCCCTGGTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTACCCCAAGTAAT
CCCCAGAAGGAACTTACACTTTTTTTAATCTTTTCTACAACCTTCATATTTTATAAATA
AAAAGACAAAAATGTCAGGCCTGTG

TABLE 1

211/467

Sequence 1283

GGTGGCGGCGCCGNCAGGTACCAAATGAAGTGTGAAGACCNNGGCCATCCACCACTTTAT
AGAGGGTGTAAAAATAAACCAGAAATCATGGGAGAAAAGAAAAGATNAAAGACAACTGCA
AAAAATTGCCAAAATGCGACTTTCTAAAAATGAGCAGATTCTGAGGCTTTGCATGTCTTG
GCATTCCTTCAGGAGCTGAATGAAAAAATGCAACANGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCANCATCAANCTGGAATGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTAT
TCAAAATATGNAATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCATACCACTG
GACAGGNTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCNAGGAGTTCTGGGA
NAGGNACCACATTGGGG

Sequence 1284

CGCGGTGGCGGCGCCGCGGCGGAGGTACCCCGGGAGAGCCCGCTTCCCCCTCCTCCCTGTG
CTGTCTGCACCCGAGGAGAGCGGCCTGCCCGGAAGTGGGCCACCATATCTGGAACTACA
GTCTATGCTTTGAAGCGCAAAAGGGAATAAACATTAAGACTCCCCGGGGACCTGGAGG
ATGGACTTTTCCATGGTGGCCGGAGCAGCAGCTTACAATGAAAAATCAGAGACTGGTGCT
CTTGAGAAAACTATAGTTGGCAAATTCCTTAACCACAATGACTTCAAAATTTTAAAA
AATAATGAGCGTCAGCTGTGTGAAGTCCTCCAGAATAAGTTTGGCTGTATCTCTACCCTG
GTCTCTCCAGTTTCAGGAAGGCAACAAGCAAATCTCTGCAAGTGTTCAAAAAATGCTGAC
TCCTAGGATAGAGTTATCAAGTCTGGAAGATGACCTCACCACACATGCTGTTGATGCTG
TGGTGAATGCACCAATGAAGATCTTCTTGATGGGGGAGGCCTGGCCCTGGCCCTGG

Sequence 1285

CGCCGGGCAGGTACCAAATGAAGTGTGAAGACANGGCCATCCACCACTTTATAGAGGGTG
TAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGA¹GAAAGACAACTGCAAAAAATTG
CCAAAATGCGACTTTCTAAAAATGNGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCT
TCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTC
TGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTG
CCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATA
TGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGG

Sequence 1286

TCGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACAGGTAAGATATA
CTGGAGTCACAGAGCAATATGCATTAACAGGATACAACAGTTCATAAAAACTGAGTAACT
ATGCACACAAATTTCTTAAACAGCCACCTAAAGAGAAAATGCACAGATGTATGGTGGAAA
CTGTATCTAACACTGAACTACTACAGGACTCCATCAATGAGTCCAACTTTTAGTGATAA
AAAACACTACTGACACTACATGAAGAACCATATGTTTATAATTATCCAAATAAAAAATGAAG
TTATTAAACTTCAAGATAATATGGTAATTTGCATTGAACCGATGATTTTACAAAATTTCTG
CAAAGGTCAAATTTTAAAAGATGGCTGAACAGTAATTGCAGCATCTAATAAAAAACGCAG
CTCATTACCGAGCAAACGGTTTTAATTAATAAATTCAAAGGAATAATCCTGACAGGAGAA
ATAAAAAAATAGATGTCAAAGAAGATAAAATTATTTTCAAAGGAGTAGTAACTCAAGTT
TTAACACC

Sequence 1287

CCGCGGTGGCGGCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGNGCAGATTCTGAGGCTTTGCAT
GTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAG
AGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGA
ATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGT
TGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCATA
CCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGTT
CTGGGAGAGGGACCAGATTGGGGGGTAGGT

Sequence 1288

CCGGGCAGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTGCCAACTTG

TABLE 1

212/467

TTCAGTGAAGCAAGATAGTTTTCTCCCTTCCAGTTCTCAGCAGGCCTGGCTGAAGGC
CCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAAATAGCAATAGCAATAAGAAGATG
CCATCCCATGGAGCACACCATAATTCTGGAACCACCTCTCCCGGATCAGGCTTCCATTGC
TCACGATGCTCACGCTGGGCAGCCGCAACTCTACTTTGCAGAACCTCACCAACTTGTTCCA
GGTATTCTCCCCGGTCTTGAAGAAATGGCTCTCCACCTGAAAAGTTGATCTTTCTCCATA
CCAGCTTCTTAAAGCAAAAGCAATCCTCTCTTTGCTTCTCAAGGGGCAAGCAGCAAAAGG
GATGTTTTTGGCTGTGTGGAACAGAAAGCCCGCATTTGTAGTTTGCAGTGGCCAGTGAA
GTGATAGTTGACCCTGGTTGGGGTGGGGG

Sequence 1289

CCGGGCAGGTACCAAAATTGTAAGAAGAAGCTTGGGAAGCTGCCACCTCAGTATGCCCTG
GAGCTCCTGACGGTCTATGCTTGGGAGCGAGGGAGCATGAAAACACATTTCAACACAGCC
CAGGGATTTCCGACGGCTTGAATTAGTCATAAACTACCAGCAACTCTGCATCTACTGGA
CAAAGTATTATGACTTTAAAAACCCCATTTGAAAAGTACACAGGAGGCAAAAGTGTTTC
ACATCATAGACTTCACTTCCAACCTCCTTGAATGTTTCACTTTTGGCTTACAGGAGAGA
CTAGACAGGAAGGCCAGGCAATGCTTAGGCAACTAAAATGAGGTTGGGGGTAATGCTAAC
GTCACCCTCACAGGGATGGCCACGGGGACTGTTATTCGCAAGCTGGTTTTCTAGGCCTGT
TAGCTGGAAGCATGGTGAGCACCATTCTGGACGCTCAGGCCGTGTCGGGCTTNAAGTCA
TCTTNCACCACACAGGTACCTTNGGGCCGNTCTAGNAACTAGTGGGATCCCCCGGGCT
GGCAGGAAATTCGAATATCAAAGCTTTATCGATAACCCGTCCGACCTTCGANGGGG

Sequence 1290

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGTTGTAATAA
AACCAGAAATCAAGGGAGAAAGAAAGATGAAAGACAACTGCAAAAAATTGCCAAATG
CGACTTTCTAAAATGGACAGATTCTGAGGCTTTGCATGCTTGGCATTCTTCAGGAGC
TGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCC
TCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAG
GCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAATGA
CTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAA
CACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAGATTG

Sequence 1291

AGGTCATAAAACATTATTCCTTCCCTTGGCCTAAAACTCATCGCCACCTACATTAAAGCT
AATATGCCTGATTACTGTTTTAGAGAACTTATTTATTAGGGCAGTTCCAAGCTCAAAA
ATCGCTAACTGGCACCTTGNGTACATAAAAATGCACCCTAGACCCGAACTTACTAGAC
TCATTATAAAATTTCTTTAAGGTGTCCACGCAGTCCCTGGTCACACTTGAAGCAGTCCG
GAGAAATATCAGCCCTACCCAGTAATCCCAGAAAGGAAGTACACTTTTTTTTAACTTT
TTCTACAACCTTCATATTTTATAAATAAAAAGACAAAAATGTCGGGCCTGTGAGCTGAAGC
TTAGCCATTGTAACCCCTGTGACCTGCACATATCCGTCCAGGTGGCCTGCAGGAGCCAAG
AAGTCTGGAGCAGNCGAAAAACCACAAAGAAGTGAACAGCCAGGTTTCTGNCTTAAC
ATTAACCCAC

Sequence 1292

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATAAAACATTATTC
TTCCTTGGCCTAAAACTCATCGCCACCTACATTAAAGCTAATATGCCTGATTACTGTTT
TTAGAGAACTTATTTTATTAGGGCAGTTCCAAGCTCAAAAATACGCTACTGGCACCTGT
TAGCTACATAAAAAATGCACCCTAGACCCGAACTTACTAGACTCATTATAAAATTTTNTT
TAAGCTGTCCACGCAGTCCCTGGTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTAC
CCCAGTAATCCCAGAAAGGAAGTACACTTTTTTTTAACTTTTCTACAACCTTCATATT
TTATAAATAAAAAGACAAAAATGTCAGGCCTGTGAGCTGAAGCTTAGCCATTGTAACCC
TGTGACCTGCACATATCCGTCCAGGTGGCCTGCAGGAGCCAAGAAGTNTGGAGCAGCCGA
AAAACCACAAAGAAGTGAACAGCCAGTTTCTGCCTTAACCTAATTAACCCACCTTACGAC
ATTCCACCATTATGACTTTGTCCACCATTATGACTTGTTCTGGCCTGCCCAACTG

Sequence 1293

TABLE 1
213/467

CCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTA
AAAATAAACCCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAACTGCAAAAAATTGCC
AAAATGCGACTTTCTAAAAATGACAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCTCA
GGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGG
AAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCC
ACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGT
AATGACTGGTATGGCAAAAGATTGGAAGTAAAGACTGGCCATACCACTGGACAGGGTTAT
GTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAGA
TTGGGGGGTAG

Sequence 1294

CGAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCCAGGTGTTACAGCTG
CTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTG
CCCAACTGGGTTTCCCAAGCTATGTAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGG
GCAGTTCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGC
ATTACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
GTGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGAAACATGTC
CTTGCTCTCGCAAGTGGCCCTGGCA

Sequence 1295

CGAGGTACCTGTGAAGACAGCTACACCTGGTTTCCTCCCTCATGCCTTGATCCCCAGAAC
TGCTACCTTCACACGGCTGGAGCACTCCCAAGCTGTGAATGTCATCTCAACAACCTCAGC
CAGAGTGTCATTTCTGTGAGAGAACAAGATTTGGGGCACTTTCAAATTAATGAAAGG
TTTACAAATGACCTTTTGAATTCATCTTCTGCTATATACTCAAATATGCAAATGGAATT
GAAATTCAACTTAAAAAAGCATATGAAAGAATTCAAGGTTTTGAGTCGGTTCAGGTCACC
CAATTTCGAAATGGAAGCATCGTTGCTGGGTATGAAGTTGTTGGCTCCAGCAGTGCATCT
GAACTGCTGTGAGCCATTGAACATGTTGCCGAGAAGGCTAAGACAGCCCTTCACAAGCTG
TTTCCATTAGAAAGACGGCTCTTTCAGAGTGTTGCGAAAAGCCCAGTGTAAATGACATTGT
CTTTGGATTTGGGT

Sequence 1296

CGAGGTACAGGAGCAACCTTCTTTCCACCATTACTGGGAATTCCACCACTATTTGCTCCC
CCAGCCCAGAAATCATGATTCTTCTTCATTCCATTCAAGGACTTCGGGAAAAAGTAATCGA
AATGTTCCCGAAAAAGGTGTAATGGGTCAATAAATGGAAGTAATACATCATCTGTAATT
GGTATCAACACATCTGTACTTTTTTTTTTTTTTTTTTTTATCTAAAAGCAACATAATTA
TTTTTCTTGCGATTTTTTCAAGAACTCTTTTAATTGTCTAACACCTGATTCTAGTGTAT
AGCTTCTGATT

Sequence 1297

CGCCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGT
GTAAAAATAAACCCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAACTGCAAAAAATT
GCCAAAATGCGACTTTCTAAAAATGANAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCT
TCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTC
TGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTG
CCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATA
TGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCA

Sequence 1298

CCGCGGTGGCGGCCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACC
ACTTTATAGAGGGTGTAATAAACCCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACA
AACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGC
ATGTCTTGGCATTCCCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTG
AGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAA
GAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAA
GTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATTGGAAGTAAAGACTGGCCA
TACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAG

TABLE 1
214/467

TTCTGGGGAGAGGGACCAGATT

Sequence 1299

CGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGT
GTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATT
GCCAAAATGCGACTTTTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCC
TTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGT
CTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGT
GCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAT
ATGTAATGACTGGTATGGCAAAAGATT

Sequence 1300

CGNCCGCCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTG
TAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTG
CCAAAATGCGACTTTTCTAAAAATGGACAGATTCTGAGGCTTTGCATGTCTTGGCATTCC
TCAGGAGCTGAATGAAAAAATGCAACAAGCANATGAAGACTCTGAGAGGGGTTTGGAGTC
TGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATANAAGATGTGNT
GCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGG

Sequence 1301

CNAATTGGAGCTCCCCGCGNGGCGCGGAGGTACAGTATGGCTTAAAAGGCTCTGCCTT
AGATTCTAGAATCCAGAACATTTTCTCAAAGACAATCAGGGTATGGGGGAGAAGTTAGT
TCCAGAGAAGAGAGCGAGTCCAGGGTAGAAGGGATTCTTCTCTCTGAGGGTCTATGGTC
TCCATTTTTTAAAGCAGCAGNGGTATCTATCCCACTCATGGCCTAGAGGTTGCACAGAG
CTGTCTGGCACCCGCTTCTTTGGCTTTTCTCTCTGACACCCAGCAATGCTTACTCAGAG
CGTTGAAGGCGGCCAGCACCTCGAAAGAGATTCTCTGATTTTTTGTGAACACCTGGATGG
TGAACCCATCAAGGGACTTCTGGATCTCGAAATTGTTTTTCAACCCTTCGTGAACAGACA
GAACCTTCAGCTTATCCC

Sequence 1302

CCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTA
AAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCC
AAAATGCGACTTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCT
CAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCT
GGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGC
CCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATAT
GTAATGACT

Sequence 1303

CCGGGCAGGTACTACCATGCCGGGCCAATTTTTTTTTTTGTTTGTAGAAATGAGGTCTTGC
TATGTTGCCAGGCTGGTCTCAAACCTCTGGTCTCAAGCGATCCCCCGCCTCAGCCTCC
CGAAGTGCTGGGATAAAAGGCGTGAACCACCATACCCAGCCAGTATTATCTTTTCATTTT
ATTTTCCAGTTGAGTATATTATTGGCTACATTTGCATACCGCACAAATTGTTTCATTTTTTA
AAAACCAATATTTTGTGTTTGTCTGTTGTCTACAATAAGGAGAATTCAGATGATAAACTT
ACAACCAATCATGGCCAAGTCCACTTGAGGAATTGTCTCTGTAGATTTATCTGTAGACTC
CCTAATA

Sequence 1304

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGAGTGTA AAAATA
AACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATG
CCGACTTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCTTCAGGA
GCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAG
CCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACT
AGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAAT
GACTGGTATG

Sequence 1305

AGGTATTCGACCCACGCGCCCGTAGTTTTTATCTTTGACCAACCGAACATGACCAAAAAAC

[illegible]

TABLE 1
216/467

CTGTCTATGCATAGAAAAGTCTTTATGCCTAAGATAATTACTGGGATTTAAGAAAGTGA
GAAAAAGAATAGGTGGGATTGAGAAATTAGGTAAAAACAGAAGAGGCCAACTAAACCCA
AGTGCTGCCCTTCAAGGGCTCTAGTAACCGGACGCGTGGGTCGAAGCTTGACCT

Sequence 1311

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAATCCCGTCTT
ACAGAAGAGAAAACTGAGATTTAGCAACATAAAAGTATTTCCCGTAAGTAAACAGTAGAG
CCAAGATCTTGACCTACGCCATCTGATACCTGAGCCCATGCTATAAAAGAGGAGCATTAG
AAATATTTGAAAGATAGAAATGAGAACTAGTCAATATTTATTTGCTTAGCACTGTATTC
AGTATTATGGCATCTTAAAGTAGTTAAGACTCAATATTTTCATCAAAAAAGTTTAAATCT
AATCAGAGAAT

Sequence 1312

TACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCG
TCCGGCCACATTTTCAATTTAGCCATTTTTCTCTTATTCACCTTTTTCTGCTAATTACTC
TGTAATTCCTAAGAAAAGTCAATAGATAATTCCAATAATGACTTCACTCCTGAGAATT
TTATTAGCTGCTAACGCTTGTCTCATCATAAGCACTCATATGTTCAATTGAGTAAATATTT
ATTGAGTATTTGCTATGGTCCAGGCACTGTGCTAAGTATTGAGGATAAAATGGTGATTGA
AACATTTTCCCTTCTTGATTTTAAACATCTACAAAATAAAAAGTATGTTAATATCAAAAA
AAAAAAAAAAAAAAAAAAGN

Sequence 1313

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAAGCCTCACTCACAATTATT
TTTGAGATAGCTCCCAATGAGTTTAACTACTGCTATGCCAGGTGTGTGAGGCTGCTGTGG
GACAACAATCTTGATTCTAGAGAGTCATAAATTTCTAGGGACTACAGGCTCCTGCCAC
CATGCCTGGCTAATTTTTGTAGAGATGGGGTTTACCATGTTGCCAAGCTGGTCTTGAA
CTTCTGAGCTCAAGCGATCCACCTGCCTCAGCCTCCCAAAGTGCTGGGATTACAGGTGTG
GGCCATCACGCTTGCCCTAGAGTAATATTCTCTATTATCAAGGTAGAAAGTTCAACATAT
ATTCATTAGATCTACTTTATAGATACTGTTACTCAGATCACTTATATCGTTATATGTATT
TTTTGTCTTCTTAACCTCAAGTCTTGATGAGAGAAGAGGTGTTTTAAATTTCTCTGTTA
TTTCTAGGGTTCTATTCATTT

Sequence 1314

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTAGATGACAACATC
AAAACATACTCTGATCACCCCGAGAAAGTAAACAAAGATGATGAGGAATTCATAGAAAGC
AATAAAATGCTGCTATTAATGGAAGAATGTTTGGAACCTACAAGGCCTCACAATGCAC
GTGGGAGATGAAGTCAACTGGTATCTGATGGGAATGGGCAATGAAATAGACTTACACACT
GTACCTGCCCGGGCGGCCGCGCCCGGGCAGGTCCGGGCAGGTGCTGTGATGCTCTG
CGAAGTTTGAGCCCAGAATGAAGAGATGTTACCCAGTATCTTGGTGTGCTGAAGAGGT
GTGTGATGGATGATGACAATGAAGTAAGGGACCGAGCCACCTTCTACCTAAATGTCCTGG
AGCAGAAGCAGAAGGCCCTTAATGCAGGCTATATCCTAAATGGTCTGACTGTGTCCATCC
CTGGTCTGGAGAGGGCTCTGCAGCAAGTACCT

Sequence 1315

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCAGAT
CAGACGTGGCGACCCGCTGAATTTAAGCATATTAGTCAGCGGAGGAAAAGAACTCTGAA
TCCGACCAGTGATAGGTGATTACATTAGCCTTTGAAGTCAACACAAAGTTTAAACACCTG
CCCGGGCGGCCGCGGCCGCGGGCAGGTGTACAAGCTTCGACCCACGCGTCCGGCTGAAGA
CATCCCTAGGGCAGGTAGCAGAATACCTAATTCAACCTAGAGAGGCACAGGCTGCACGAG
AGTCTCTCAGATAAAGCCCCATTGAAAATAAATTTACAATCTAAATTTAAAAACCCGTT
AAAAAGCAGCACAGCATGAGGAGTCAGTAGATACACTGAAAGCAAGATTAGATCTTCAA
GACTTTCAAATATAAAATTTAGAAAATTATAATAAATTATGAAATAGAGGCCCTTTCAT
GTCAAAAAGTCATGAAAG

Sequence 1316

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCG
AAAAGATGAGGCAACAAGTAAGAGAAAACAGCATTGAGCTTAGAGAATTGGAGAAGAAAT

TABLE 1

217/467

TAAAAGCAGCTTACATGAATAAAGAAAGGGCAGCTCAGATTGCTGAAAAGGATGCCATTA
AATATGAACAAATGAAACGTGATGCTGAAATAGCCAAAACCATGATGGAAGAACACAAGA
GAATAATAAAGGAAGAGAATGCTGCAGAAGACAAACGAAACAAAGCGAAAGCACAGTACC
TGCCCG

Sequence 1317

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAGCGTGCATAG
GGACTCTTGCCCTTAAGGAGTGTAACTTGATCTGCATTTGCTGATTTGTTTTAAAAAA
CAAGAAATGCATGTTTCAAATAAAATTCTCTATTGTAAATAAAATTTTTCTTTGGATCT
TGGCAAAAAAAAAAAAAAAAAAAGTGCAGCGCCGCCCGCCCGGGCAGGTACACTTGTGAT
AAGAGTTTTCTGAAAACAGTCTATCAAATATAAAGAATGGTTTCTATCCAAGAATCAGCA
GTGAGGGAAGAAATACTAAACACCTGTCAAGAAATCAGTTATTCATTTTAAAAATAACA
GAACCAGTGCTGCTCTCTGTCATAAAAAAGAACATGTAAATTTATTTTTATAGGCTTTG
GTAACATTATATTTCCCCACAGAGGCCTTCAATCCTACTTAAAGATA

Sequence 1318

AGGTCAAGCTTCGACCCACGCGTCCGGTACTAGAGCCCTTGAAGGGCAGCACTTGGGTT
TAGTTGGCCTCTTCTGTTTTACCTAATTTCTCAATCCACCTATTCTTTTTCTCACTT
TCTTAAATCCCAGTAATTATCTTAGGCATAAAGCAGTTTTCTATGCATAGACAGTTCATT
TAGATTGGTAACATGGGCTAGGTAAAAAAAAAAAAAAAAAAGTGCGACCTGCCCGG
GCGGCCGCCGCTCGTGATCTAGATCCCCGACCT

Sequence 1319

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGTTT
GGGTGGAATTATAATATTTTAGATAAGATTAAAGAGGATTCTAATTCTAGCTACTTGATA
GGAATGCGAATGATGATAAGGCTTTTAGAGTTAGATAAAGAGAGAGGGCTAGCACCCCTGAT
ATTCTGTAATTGAAACAGAGTTTCAAGTCCTTTGGTCAAGTATTACCCTTATTCCTTCAG
GAATAGTAGATATTTTAAGATTACAGATAGGTTATCTTATCTAATTTACCTACCTATTGT
TGAAATTATTTAATTTGCATTTAACTGTGTTTTACACCTGCCCGGGCGGCCCTCTTACC
TGCTTCTGACCTTATGCTCAAGAACTCCCTAACTCTGGCCAGAGCTCAGCTTTGGCAAC
TCTGACCGTTGAGCAGCTCTCATCCCGGGTTTCTTTACGT

Sequence 1320

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
AAGCTGCTCCTTGAGGATAAGGGCTAACTCACAGGCAGTGACCAAGAGCCACTATAAAA
AGATCCTTAATGAGCAAAATATATCCCTATTATTTTCTACAAGTTGCTTTTTACTTGA
GTAGGAACCCCTTGATTGATTTTGGCGACNCGTGGGTGCAANCTTGACCT

Sequence 1321

GGGCGAATTGGAGCTCCCCGCGGNGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGT
TTGTTTTTTTCTTACGGCAACTCAAAGCAAAGAGCTGGAGGAGCCAGCCATTATNATTGC
TACTCTCATCGCTTAGCGCCCCAGGTGGGATGTGTTTCCAAAACACATTTTGTATTTA
TAAGGAAATGTAGTTAGGATTAATTTTATTGTCTTAATTAGAAGTCAATTTTGGTTAAA
TCCTCAATTTTCTGCTTGCCTAAGAAACAAAGCTTNTGTGGAACCATGGAAGAAGATGAA
AATGAGACTGGCAAAGAACAATGCTGAATCTGAAGAAGATTGGGCAAATAATCTGCAT
ACTTTTAATTGGGAATAAGATGGAAAATATGAATGCTAAATCAAATTTTTTA

Sequence 1322

CCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCGTCCGCTCACTTCATCCTCCAG
CAACCTATTATGATCCATTGCCACACCAACTTGCTGATGAGGAAAGTGGGGCTTAAGGAA
ATTAAAGAGCTGTTGTGGGACTTCCAAAGCAGAAGACAGTAGGCTTTCAGAAATTTGATA
AAAATAGCACTTTGCATTTCTTGAATCTTGAGCTAAATGGAAATTAATACTAAACATTCT
CCACTGGTAAATAGAGAATAAGGATATTAACAGTAAAAGAAAAGAAGAAGAAAAGGAAA
TGTGCTTCCACAGATTTAGAAACATAAGTAACAATCTAAGTTAAGGCTTTGGCACCTGCC
CGGGCGGCCGCCGCCCGGGCAGGTTCAAAGACTACCAAAGTATGTATTTGATTTTACA
TGCAACAACCTAAA

WO 01/070979

PCT/US01/09126

WO 01/070979

PCT/US01/09126

TABLE 1

218/467

Sequence 1323

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTC
CGCAGAAACCTTGCCATCATTCTTACTGCTGGTTTGCATCTCATTATGGTGNNTCTGGG
ATTTCTTCTCATGAACAGAAAGATTCAGTGGCTGTTATATGCCTTGTCAATTTAATGTAT
TGCCCTATCCTCTTTTTGATCAAAGATAGAGACTAAGACTGGGAATTATGACAGAAAAAG
TCATATTTTTCTTTAAATGATTTTGAATGTTAAATAGGCCAATATGAGTCAAAGTGCA
AATTTTTTGGTGACCTGCCCGGGCGGCCGCCGCCGCCGCGGCAGGTAAGCATTTCAGT
TCCAGGAGAATAAAAGAAATTCCTATTTGAAATGAATTCCTCATTGGAGGAAAAAAGC
ATGCATTCTAGCACAACAAGATGAAATTATGGAATCAAAGTGGCTCCTCCCATGTGCA
GTCCCTGTCCCCCGCCGCGCAGTCTCCACACCCAAACTGTTTCTGATTGGCTTTTAGCTT
TTTGGTGGTTTTTTTTTTTTT

Sequence 1324

CCGCGGTGGCGGCCGCCCGGGCAGGTGCCTAATATATTTACTCTCTGGTCCTTTACAGGA
AAAGTTTGCCAACCTCTGGCTTAGATGATCACCTGAGGCCAAGGAGCCTCGCCCTTGAGC
ACAAGACTATGTAGTCAGTAAAGCACAAACAAAATTGGGGCTTTCCCTAGCAAGGTTGGA
AAGGCGGAGAAAGAAATGGATTTGGATAGGTAGTCAACAATGTCTGTTTTATGTTACCACA
CATTTTCTCGAGAAATTTCAATCAGCTCTCTGAGAACAGATTCATCTTTAAATGAATGTT
CATAGGTAACAGCAACTCATGCATCAATGTTGCAAAGTGAGCTCATTTTCACATTGCTTC
AGGTTAGGCAGAAGGTTTGGTAAAGGGATTAACGTAATTGTTTCCTTGNTGTTTACAAAA
AGAAGTCCCAGTTGGCATGCCACATAAAATCTTCTGNATCTCACTCTTGGTTACATTTT

Sequence 1325

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGTCCGCAGAGGCC
AGGCTCCCAAACCGACAAAGTGAAGAGAGACCAGAGAGGCCAAGCATATTGACTGGTGCT
GTTCAGGGCCTGCTCTTTTCCACTCACCCTTGTTTTGCTGCTTGTACGAGGAGAGTTG
TTCCTGTATGTGGCTGCTCTCAGATCTTCCAAGCAAGCCAGTCATTTGAAGAGGTTTTT
TTTTCATGCTGGAGGGCAGGCTAAGATCAATGAGTGGAAGAGAGAAAGGCTGTTTTAGCT
CAAGTTAAAGGAACACCTTCTAGCCATCAAAGCCGCCCAACAGAGGCAAGGGCCACCACA
CATGAGAGAGCGCTCTNTCCTTAA

Sequence 1326

GCGAATTGGAGCTCNCCGCGGTGGCGGNCGCCCGGGCAGGTACCAAAATAATTACCAACA
NTACATTATGTACACCATTTACAGGAGGGTAACACAAACCTTGACAGGTAGTAACTTTTC
ACCCACATNACTGAACGCTTAACACTCCTGGCTGTTAATTGTCAGTTCAGTGTTTTAAT
CTGACGCAGGCTTATGCGGAGGAGAATGTTTTATGTTACTTATACTAACATTAGTTCCT
CTATAGGGGTATAGCGGACGCGTGGGTCGAAGCTTGACCT

Sequence 1327

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCTGTAGCCTATGACTTG
AGTCTCTTGAACCTTAGGAAGAGGCAAACTACAACTACTAGGATTCTGATTTAGATA
TAGGCATTCCAGAATCTTCTTTACGAGTTCACCTGCTAGTATAATCTCCACAACCTGA
ATGGCCTTGGTTGTTCTGTAATTGCTGCCAAATCATCACAAGCTGTACCTGCCCGGGCG
GCCGGCCGCCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGGATGGGAATTCAAGTATGA
AAGAAAACAGGCAAGGAGGCACTGAGGGAGAAAGACACAGACTTTATCGCTCTGTGGCTC
ATTGTTACTGGAATATTCTAAACTCTTGTTTACATGCTATTATGACTTATAAAGCAGCA
ACAGCTGAGGCGCACCAGGACACAGCTTCCATTTCTTAACTG

Sequence 1328

AGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGA
AAAATGGGAGACAATTTACATGGACTTTGGAAAATATTTTTTCTTTGCATTATCTC
TCAAACCTTAGTTTTATCTTTGACCAACCGAACATGACCAAAAACCAAAAGTGCAATCAA
CCTTACCAAAAAAAAAAAAAAAAAAAGACCTGCCCGGGCGGCCGCCGCCGCCGCGGCAGGTA
CAAGCTCGACCCACGCGTCCGAAATAATAAAGCTAGAAGTAATATTTTTCTTTTGTCTA
TTTTCCAAATTGACTCGATATTGATGGCTACTTTTGAAGTTTTTATTTAAGTTTAAAGG
GAATATTTATTGATCACCTNTATGTGCTCAGTACCT

TABLE 1
219/467

Sequence 1329

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCTTCGACCCACGCGTCCGC
TTGGGGATTTTCGAGGAAGGGTTATAAGGGAGATTTTAGCTGAGAAATACCATTTGCACA
GTCAATCACTTCTGACCAAGTTATCAGAAAAAGGAGAAAAGAATGTCTCCCCACTAAATG
TTCTAGGGTGGTGAGAAATCTAGGGTGGTTATCTAAATCAACAATATTTAGATATTCOA
TATCTAAATATTGTTGGAAATACTCTCCTGAAGTGTTCACTGAAGTCTAAGAGAGACAGC
TTGTGTATCAGTGGCAGGGTTTAAGGTTCAATTTTTATTCCCATATTAATCCTTTAATAT
TTAGACAAATTTCTTCTGAGTTTAAGGATAAAATGGGATGGGTTCTGCCTGGGCCTGGC
CCTCATGGGGACATCAAAGGGCAATGTTGCAAAAAAAAAAACC

Sequence 1330

AGGTCAAGCTTCGACCCACGCGTCCGTGAACTTTTATCAAGGCTTTTGCTCTTTAGACT
TGAGTTTATCTTTATAATTAAGGAGAATGGTTTTTAAAATTTAGTTCCTCTGACACCCCA
AAATTATCAAAATAAATTATGTTGTAGTGAATCTGTGTTTTGAAAGTCATTGATAGGACT
TATATGAGTCAAAATTTTATGATTATAAAGTGGCTTTATCTGGTTGGAAATAATTGCA
ATACAAGAAGCAACTTTTAAATTAAGCTAAAGTCACAATCTTCTTTGCTGCTTT
TTAAAAATTACCTATTACCTTTAAAGATCCCAAATTTAGAAGAGGAATTAATAAAAG
TTAATGCAATAAAACACTTCCACAATATTCTATTACTTCAACCTCTAATCAATGAAA

Sequence 1331

AGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTAAAATTTAAAGTATAATA
ATAATAAATTTTTGTTTTAAAAAAGAGTGTGTCTTTGTCTTGATTTTCTGCAGTTTG
CATGTGATATTCTTAGGTATAGATTTTTTTAGTATTTGTCTGTATATTGTTATTCGAG
CTTCTGGGATCTGTGTTTTGGTGTCTATCATTAACTTTGGAATATTCTCAGTCATTACTG
CTTCAAACATTCATTCTGTTGCTTTTTCTCTTCTGGTATTATCATTACACATATATCACA
CCTTTTGTAATTTCTCCACAGTTCATAGATATTCTGTNGTATTTATTTATTTTTCTCTT
TGCCTTTTAGTTTTAGAGATTTCTATTGACATCACTTAAAGATGATTGATGAGTTGATGA
GAATTGAGAGAATTGATGAGAATTGTTGATGAGAATTATT

Sequence 1332

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTTTCCTGCATTTG
TAATGAAGAAATAGGCTGGTCCTCAATTTGCAGAAGTTGTATCATCATAGGTCATACCT
AACATTCGTTTGTCAAGAGCAAAAAAACCCCTTGGGTTCTCTGGATCTCACACAGCCCA
CAAACCTTCAGAATGTGGTTCCTTCCCGCAGGCTTTGTCACACTTAAGATCCAAGAACAA
ATCAGCCTGGCTTTAACATGGGGTAGATGGCAAGAAGGATAATGCGGACGCGTGGGTGCA
AACTTGACCT

Sequence 1333

CCGCGGTGGCGGCCGAGGTAGCGGTGCACTTTTTTTTTTTTTTTTTTTTAAATAGAGA
TGAGGTTTTGCTATGTTGCCAGGCTGGNCTNCTGGACTCAAGCAATCTCCCACTTCAGG
CTACCAAAGTGCTGGGATTTACAGGCATGAGCCACCTCTCCAGTCTCAGTTATTTT
AATAAATGAGACTGAACGTCTCTTATAAGGCTCACTCCCTGTTCTACTACATTTGCT
CTGTTTAAGTATCTCTTTAAATTTCTCAGTTAAGCGGACGCGTGGGTGCAAGACCTGCC
GGGCGGCCGCGCCGCGGCGGAGGTATTAACAGGTGCTTGCAAGTTTGTGACTTTTTGAA
AAAATCAAGTTGTAACCTTTTATTACAAATTAATAAATGAAGTTCTTAAAAATCTCAACT
GACCAGATATGAAACAATTTAAAAACCTTTAAGGCGTATTGAGAAAAACCAGGCTTTTTT
AAA

Sequence 1334

ACTTAGGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGCTCACCTGCCCGGGCGGCCGCTC
GAGGCCGCTCACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTTTNNCAAAA
CAAAACATGCTTAGCATGCACACTTTTACCCTTTTTTCGAGTGAAAAGTTTATTGGCAA
TATTAATTTTACCCTANATAGGATATGAGAATGTTTTGATAAATCACAATTTATAGTAT
ATTAATGCCATGTGAGAATTTTGTTCCTAAGTAAGAGCTCATATGGAAGTTGGTCATTA
AACCTTAAAGAAACCTTTCTCACATATCTATAGGCCTCAAATTGAAATAATCTATAAATG
AATTTGTAGATTTCTTTTAGTTTAATTCCTGAGTATACAGGGCAAAAGCTTATATCCTT

TABLE 1

220/467

TATATAAACTTCTGCTTTGGTCTAAAACTGATATATCTTCACGTTGAGGTTTCATCTGAA
ATGCNCCACCGTTTGCTGACTTGCTTCAATATGAATTTGGATGGCTATAAAATTGACCTC
GGCCGCTCTAGAAGTAGTGGGATCCCC

Sequence 1335

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCGGCCGCTCGAGGCCG
CACTTTTTTTTTTTTTTTTTTTGGTAAACAGGCGGGGTAAGATTTGCCGAGTTCCTTT
ACTTTTTTAACTTTCTTATGAGCATGCCTGTGTTGGGTTGACAGTGAGGGTAATAAT
GACTTGTTGGTTGATTGTAGATATTGGCGGACGCGTGGGTGCAATCTGTACCTGCCCGG
GCGGCCCATAGTTTGTCAACCACTGGTGTAAACCTTAGTTATATATGATCTGCATTTTC
TTGAACTGATCATTGAAAACCTATAAACCTAACAGAAAAGCCACATAATTTAGTGCA
TTATGCAATAATCACATTGCCTTTGTGTTAATAGTCAAATACTTACCTTTGGAGAATACT
TACCTTTGGAGGGAATGTATAAAATTTCTCAGGCAGAGTCCTGGATATAGGAAAAAGTAA
TTTATGAAGTAAACTTCAGTTGCTTAATCAAATAATGATAGTCTAACAAGTACGCAAGG
ATCCTCATCTNGAGAAGTGCTTAAAT

Sequence 1336

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGAAGATCCTGCGGAAGGAA
TATGTTTTGCTGACTCCAAAGTAAGTGACAGCAAACCTCTAAATGGGCTGTGAGGTAG
GGAGGGGACACAAGCGTTTTGAGGCTCGCTGNGTGCCAGGGAGTGTATCATTAGCTCACT
CAATCCCAGAACCAACCATTTACACCTGGGAAAGGTGAACCTAGAGAAGTTGAGGATC
ATGTTCCAGGTTGGCCTGGATTTGAGCCATCACTGTCTCAGGAGTAGGGAGGCTTCCAC
TTTGCCAGCTGCCTCCAGCCTCGAGGCCACATCCTTTATGACCCACATCTAACTCAGC
CCCACACCTGGGGGAAAGGCTTTCAGCTTCTCTGGGCTGGACTTGGGAAATCTTTGGGAC
ACTCTGACCTGCCCGGGCGGC

Sequence 1337

CCGCGGTGGCGGCCGCGCCGGGCGAGGTGTCCCATGAGGGCCAGGCCAGGCAGAACCCAT
CCCATTTTATCCTTAAACTCAGAAGGAAATNNGTCTAAATATTAAGGATTAATATGGGA
ATAAAAAATGAACCTTAAACCTGCCACTGATACACAAGCTGTCTCTCTTAGAGTTCAAT
GAACACTTCAGGAGAGTATTTCCAACAATATTTAGATATTGGAATATCTAAATATTGTTG
ATTTAGATAACCAACCTAGATTTCTCACCACCTAGAACATTTAGNGGGGAGACATTCTT
TTCTCCTTTTTCTGATAACTTGGTCAGAAGTGATTGACTGTGCAAATGGTATTTCTCAGC
TAAATCTCCCTTATGAACCTTCTCGAAATCCCAAGGT

Sequence 1338

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCTTCGACCCACGCGTCCGCTT
GGGGATTTGAGGAAGGGTTCATAAGGGAGATTTTAGCTGAGAAATACCATTTGCACAGT
CAATCACTTCTGACCAAGTTATCAGAAAAAGGAGAAAAGAATGTCTCCCACTAAATGTT
CTAGGGTGGTGAGAAATCTAGGGTGGTTATCTAAATCAACAATATTTAGATATTTCAATA
TCTAAATATTGTTGAAATACTCTCCTGAAGTGTTCACTGAACCTAAGAGAGACAGCTT
GTGTATCAGTGGCAGGGTTTAAGGTTCATTTTTATTTCCCATATTAATCCTTTAATATT
AGACAAATTTCTTCTGAGTTTAAGGATAAAATGGGATGGGTTCTGCCTGGGCCTGGCCC
TCATGGGGACATCAAAGGGCAATGTTGCAAAAAAAAAAACCTGCCCGGGCGGC

Sequence 1339

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGATTCTCTGATTAGATTTTAACTT
TTTTGATGAAATATTGAGTCTTAACTACTTTAAGATGCCATAATACTGAATACAGNGCTA
AGCAAAATAAATATTGACTAGTTCTCATTTCTATCTTTCAAATATTTCTAATGCTCCTCT
TTTATAGCATGGGCTCAGGTATCAGATGGCGTAGGTCAAGATCTTGGCTCTACTGTTTAC
TTACGGGAAATACTTTTATGTTGCTAAATCTCAGTTTTCTCTTCTGTAAGACGGGATTAA
AGTACCT

Sequence 1340

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCGAGGTCTACTCAAGTAGTCT
TTACCCCTACTCAAGTAGGGGGTAAAGTGTAGAACAAGGAGTTTGATNTGTGTTNGCTG
ATTGTGAACCATCAATTGAGATAACTCACTACCTTCAGGCCAGCCAGTTACATACTTTTG

TABLE 1
221/467

AAAAGCCAAGAGTGAAGCAGGGTTGTTTTTCATCCAATTCTTGGTCTTTTTGTTAAAGGC
AGCAATAAGATAGGGTGGTTTCGGGCAATCACTTAGCTAATTGGCTCTCTATAGTCATAC
CTGGATAATATTTGTAGTCATACCTGGGATAATATTTAAAGGAAGAACTAAACATAGT
CCTTAAGTAGGAACCAACTACAAT

Sequence 1341

CCGCGGTGGCGGCCGAGGTCCTAGCTTGAGTCGACCCACGCGTCCGGCCGCTGTTTCGTAT
TTCTTATTCTACAACAAGGGNGCAGCCTANAGGCAAAACACATCCCATTGTCATTTTTTT
GTAAATAAAGTTGTATTGGAACATGGCCACTCTCATTTGTTTTCTATTATTTATGGCTGC
TTTCACTTACAACCTGAGTGGTTGCCACAGAACTGTATGGCCTGCAAAGTCTAAAATAT
TACTATGTAGCTTTTTCTTTCTTTTGGAGACAGTGTGCCACTCTATTGCCCAGGCTG
GAGTGCAGGTGGTGTGATCATGGCTCATTGCAGCCTCAAACCTCTGGGCTCAAGCAATCCT
CCCGCCTCGGTCTCCCAAGTAGTTGGGACTACAGGCATGAGCCACCATACCCGGCTAATT
TTTTAAAGTTTTTGGTAGAAATGGAGTTTTTAAATGTTGCCCAGGCTGGTCTTGAACCT
CCTGGTCTTAAATGACCCTTTTCCCATCAG

Sequence 1342

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGTTATTTATTGATTTAATCAT
TGTAATCTCCAATAGAGATTACAATAGAGATCTCCAACATGATTCATGCATTTAGAGGA
GAAATATTTCTGGTTAAGTGGAAAATTGTGCGGATGTGGCTTCTGGAAGACCTTCATT
TAAAGCAGCGGACGCGTGGGTGCAAACTGCCCGGGCGGCCGCGCCGCGGCCGAGGTCTG
CAATCCAGCTAGGCATGGGAGGGAACAAGGAAAACATGGAACCCAAAGGGAAGTGCAGCG
AGAGCACAAAGATTCTAGGATACTGCGAGCAAATGGGGTGGAGGGGTGCTCTCCTGAGCT
ACAGAAGGAATGATCTGGTGGTTAAGATAAAACACAAGTCAAACCTATTTCGAGTTGTNCA
CAGTCAGCAATGGNGATCTTTTGCTNGTCTTGCCCATTCCTGGA

Sequence 1343

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGCTTTAAAACCCATA
CCCCTCCAGGGTTCTTTCTGTTGCTGGTGAAAGTGCATTTTTAAAAGAGTNATTCATAC
CATCAAGATTTTTGACAAGAAAATTTAGAAAAACTGTGGAAGAAAACCTGATTGCTCTTA
GTTCTAGCCATGTGTAATTGCTGACCACCTGAAATGGTCCAAACTGAGATTTGCTAAAGC
ATAAAATACACACCATATTTCAAAGGTTTTTAAAAGAATGTAAAACATTTCAATATTTT
GGACGCGTGGGTGCAAGCTTGACCTGCCCGGGCGGCCGAGGTGGATGGACCCATCCATTC
AGGCAGGGGGTGTGGGGTGTCCCTGTGCTTAGAAACCACCTAGCATCATAAGCTGCAAC
AGCACTTTATTGGGATCTGAGTCTACAGTTCACATAGGGAGGTGAAGCCGTGGGAGAAGC
AGGGNGTAAAAAAGGGGGGGGACTTTACCCCTAAGGACAGGNTGCTTCC
AAACCTAACAAAAAC

Sequence 1344

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGTAATTTGTTGCACACTAT
GTAACAAAACAAGTGAAGATATGTTTAATAAATATTGACTTATTGGAAGTAAAAA
AAAAAAAAAAAAAAAAAGTGCGGCCGCGCCGCACTTTTTTTTTTTTTTTTGTGCTGGGGTTT
TTTTCTTTCTTTTTTTTTCAGCTACAGGAATTTAGCCAATTCANAGGAAATCTTCCCCA
TAATTATGGAACTTTNTTACAGATTTTACCAAGTCTGGTCAACCCAATAAGAAAAAGACT
GAAATAACAATAACAACCTTCAACAAATAAAAAACAGTTAAGCTAAATAAACAGATGATT
GCAGAATTTATGTGATTACTGGGTACCTCGGCCGCTNTAGAACTAGTG

Sequence 1345

CCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAGTTTGAGTTGAAACGGTATGTGACTTCCC
CAGCTGCACCCTGGGCAGTGACTGCATGCATCACTGAGAGGTCTGTCTACAGCAGATAA
AACTCCACAGATCACTCCTCCTGTAATCCCTCTAAGTGCTCCAAGGCAGCAGAAAGGCC
AGTGCAATTGAGGCTGGAAGCAGGAGCAGAGACTCTGGGATATAGTGCGAAAGTCTCTTTC
CCCTGTAGTTGGGCTAATCTGGAAAACTCAAAACCTGGCCTGATTACCGAGGTTTCTT
TTATGGATATTTAGTATTTAGATAAAATTTTACAGTATTCTTGAAATGAACCCAATTAA
ACACATAGTTCTCAGTCTTGACCACACATTAAGAATCATCTGGTAGACTTCTGTAAACTA
CCAATGCCTGGCCA

TABLE 1

222/467

Sequence 1346

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGC
TTCACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCCTCACGA
GTTTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGAAGTCCAATGCCA
TTCTGATTCTTGCAACTTACAAGTAGTCTTTTTTTGTCTANACGCTTTCAGGACCTTCTT
TTTTCTCAGTCAGTGTATCCAAACCTTCACAGTGATATCTTTGGGTACCT

Sequence 1347

CTCCCCGCGGGGGCGGCCGCCGCGNAGGCNAAGCTTCGACCCACGCGTCCGCTTTAAAGG
GAATTCTNTGTAGAGTGGGAGGCGAACACGNCTGGNNCTTCCAACCTCAGGAATTCTCGTG
GCTGGGCTGGGTCAGCGATGGCTTGTCTTTATGTCTAAAGTGCCCTATGGCATGCTG
AAGGTTACCTAACCATTCTTTAAAGGAGAATGACCCTCCATGGGAATGGCCAGCCTGCC
AACTGTGCAATTGAAGAAGACCCGATGGATCAACCCCATGTCTTCCTTGGGGAGAAAGTG
CATAAACCCAGGGGTCCCTTTTTTTTTT

Sequence 1348

AGGTCAAGCTTCGACCCACGCGTCCGCAAAAATCAATCAAGGGTTCCTACTCAAGTAAAA
AGCAACTTGTAGGAAAATAATAGGGGATATATTTTGTCTATTAAGGATCTTTTTATAGTG
GCTCTTGGTGCACTGCCTGTGAGTTAGCCTTATCCTCAAGGAGCAGCTTAAAAAAAAAA
AAAAAAAAAGT

Sequence 1349

GCGCGTATACGACTCCTATAGGGCGAATTGGGAGCTCCCCGCGGTGGGCGGCCCGAGGTA
CAAACCTATGTATCTGAAACACTTCTATTTGGCAATTTATAACAAATCAAATTTAAAAA
GAACAAAAGAGATTGCAGATTACTTCGAGATACAGAATAAAGCAATTGATGAAGTGCTT
AAGCAAAAGAAACAACAAAAAAGAAAACACACTGCTTTTCTTTTAAAAATAAAATCAC
ATTGCTATAGATCAAATGGATAATACCTTATTAACAACCATTCAGAAATGTCTTATAG
TAGCAGTGCTTTTATTTGCACTTCACTTAATTTTATAAGACTCATTTTCATGTATATAGC
TCTTTACCCCATTTGTTAACGAATAAAGTCTCTCATAATTTTACACTTTTAAATTTTTT
AAAGCAAATGAGAAATGATTTATGTATCGTGGAACCTTTCCCATTTTGAACCAAAGGT
TTAATTCTATATTTTGNCTAATATTTCTTAAAAAAT

Sequence 1350

CCGCGGTGGCGGCCCGCCGCGGCGAGGTACTATCTATAAAGGAGGTTTGATGTTTTCTTA
CTGTTTTTGTAATATTTTCAACATTATCTTTAAAAAGTAAGGACATTGGCCGGGTGCGGT
GGCTCATACCTGTAATCCCAGCGCTTTGGGAGGCNGGTGGGTGGATCACCTGAGGCTAGA
TAGTTTTATTCACTTGGCTGTTTACCAAAAAAAAAAAAAAAAAAAAAAGTGCGGCCACCT

Sequence 1351

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGAGCAGGATTACCATGG
CAACAACACATCATCAGTAGGGTAAACTAACCTGTCTCACGACGGTCTAAACCCAGTAG
AAACAAAGTGCGGCCGCGCCCGGGCAGGTGCCGCACTTTTTTTTTTTTTTTTTTTAG
AATAGGATTGAATTTTATTAACAAACAAAAATAAATCTAAAAAGCTTCCTTCAGTTACAAA
TATGCACAAGAATTTCTGCATTACATCTTTGACATAAAATGTTCTGAATGACAGAAGTA
GAAGTAGAACTTACTACCATTTGAAGACAGGAGTTGAGCGCTGAAAACACACACATTTA
TAGAAAGAAACCAAAGTTTACAGGGAAGACCTGTGATCTCTGGCTACAGGAGCTGAAAT
TAGGAACATGAAAGAACTTGGAGAGAGAAGACATTCAATACTCTAAATACTTCAGCAA
AAATAGTCAAACATNTGTNAACAACTTGGNACAAAACCTTTATATGGTGGGGGGTGGCTAT
GCCGGA AAAANTCTTNACTGGNTATTATTCACCTCAAAAAGGGGNTTTTAAATGNTCACG
AATCCTTCCTTTAAATAAANAAGCNTGGNTTNTTTTCTGGNGTCAAGAGTAAANG
TANTAGGNNTACTCAGGGATGTTTGAATTTTAAACGGGGCNTTCCACCTTGGTGG
CTNGTGGCANTTTANCCAAAACGGCNAAAACCGGCCGNGGTCAACTTGNAACCT
GGCGGNTTNAATANGGACCCCGGGTGGGGGATTNANTNAGNTTGANCCGNNNCTTGGG
GGGGCCGGCCC

Sequence 1352

TABLE 1
223/467

CGAGGTCAAGCTTCGACCCACGCGTCCGGTACTAGAGCCCTTGAAGGGCAGCACTTGGG
TTTAGTTGGCCTCTTCTGTTTTACCTAATTTCTCAATCCACCTATTCTTTTTCTCAC
TTTCTTAAATCCAGTAATTATCTTAGGANAAGCAGTTTTCTATGCATAGACAGTTCATT
TAGATTGGTAACATGGGCTAGGTAAAAAAAAAAAAAAAAAAGGTGCGACCTGCCCG
GGCGGCCGCTCGAGGCCGCCGGGCAGGTACTATGTCGATTGACAGAACATTGAGAAGA
TTCTCGGCCTTGCCCTTCACGAGCCGCCACCAAGCAGGCAGGTGGATTTCTTGCCAC
CACCTNCTTCTGGGAAGTTCTCTTGAAGTCAAGAACTCTTATTTCTATCATTCTTTCT
AGACACACACACATNAGACTGGCAACTGTTTGTAGCAANAGCCATANGTAGCCTTACTA
CTTGGGCCNTTTCTAGGTTTGAATTATTTCTAAGCCTTTTGGGNATGATTAGAGNGAAA
ATGGCNCNGCAAACCTGNAGGGGCTTTTGGNNCCANAATGATTTTAAATAAAAAAAGG
GGATTGAATAGNTAAANTCAAGGGAANGGTTTATGNAAAGGAAAAAAAAAAGCCTCCTTC
NTGGTTTAAATTTACAAAAGTNTTTNTNGGGGGACCGNCTNTAAAGNACTNGGGNTTNC
CCCGCAAGGTGGGNNGGTATTNACCCNTTTNNGGNTTNAAAAAAAAAANTTNGNNNGGT
NAACCCTGGAACNGGGGGGGTTNGNG

Sequence 1353

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGCAGGTCTTCGACCCACGC
GTCCCGGGGTTTCAAACCTGAATAACTCATTGTTGGGTCTGGATCTGTAAAAAGGTTTGT
CACTGATGGGCAATATGGAGAGAATGTAAAAATATCTAACTTCAAACAGAAAAAGAAAC
AACTGGATGAAAGCTATAACAATAGTTCAGAAGATTGGCGTAGAGGATTTACCTACAGA
ACTTCAGGAGATTCTAAGAAGGCCTTCAGTGATCTTTTCATCAATATCATCAGGCCTTA
TCATTGTTTCACATTTGCTTCTCTTTACCATAGGGAATATAATAATTATTTACTGGTTAA
CTTCCTAGGGAGATTGCCTGCGGCTTATTTAAGATCCAAATTTTAAAGTAATAATTTCTG
TTGAAGCTGCTTGTGAGGTGGTTGGGTGGGCAGATAGAGTGAAGCCAGGGACACACACTA
AATGAGCCCGGGATGTAGGCAGGTTTTGATGTTTTGCTTTGCTTTATCCCTAACATT

Sequence 1354

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGATTCTCTGATTAGATTTTAACTT
TTTTGATGAAATATTGAGTCTTAAGTCTTTAAGATGCCATAATACTGAATACAGTGCTA
AGCAAAATAAATATTGACTAGTCTCATTCTATCTTTCAAATATTTCTAATGCTCCTCT
TTAAGCATGGGCTCAGGTATCAGATGGCGTAGGTCAAGATCTTGGCTCTACTGTTTACTT
ACGGGAAATACTTTTATGTTGCTAAATCTCAGTTTTCTCTCTGTAAGACGGGATTAAAG
TACCT

Sequence 1355

AGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTCTTCGACCCACGCGTCCGGGGTTTCAA
ACTGAATAACTCATTGTTGGGTCTGGATCTGTAAAAAGGTTTGTCACTGATGGGCAATA
TGGAGAGAATGTAAAAATATCTAACTTCAAACAGAAAAAGAACTGGAATGAAAAG
CTATAACAATAGTTCAGAAGATTGGCGTAGAGGATTTACCTACAGAACTTCAGGAGATT
CCTAAGAAGGCCTTCAGTGATCTTTTCATCAATATCATCAGGCCTTATCATTGTTTCACA
TTTGCTTCTCTTTACCATAGGGAATATAATAATTATTTACTGGTTAACTTCCTAGGGAGA
TTGCCTGCGGCTTATTTAAGATCCAAATTTTAAAGTAATAATTTCTGTTGAAGCTGCTTG
TGAGGTGGTTGGGTGGGCAGATAGAGTGAAGCCAGGGACACACACTAAATGAGCCCGGGA
TGTAGGCAGGTTTTGATGGTTTGCTTGC

Sequence 1356

CGCCCGGGCAGGTACTATCTATAAAGGAGGTTTGATGTTTTCTTACTGTTTTGTAAAT
ATTTGAGCATTATCTTTAAAAAGTAAGGACATTGGCCGGGTGCGGTGGCTCATACCTGTA
ATCCCAGCGCTTTGGGAGGCNGGTGGGTGGATCACCTGAGGCTAGATAGTTTTATTCACT
TGGCTGTTTCACCAAAAAAAAAAAAAAAAAAAGTGCGGCCACCT

Sequence 1357

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCGTCCCGAGTGTTTCCA
CTCTGTCCATAAAATGGGAGCTAATATTCTCAAACCTGTGTGCCTGACATGATGGTTAA
GGGATTAAACAAAACAATAGTTTGAATTTATTCTGTCAGAGCAAACCTGCTGGTAAATAA
AAGGGCTAGTGACGAAAAATAAATTTTAAAAAACCTAATAAAACAAGTTTGAATTTATA

TABLE 1
224/467

ATTGTATACAAATAAAAGATGTTACAAAAAAAAAAAAAAAAAAGGACCTGCCCGGGC
GGCCGGCCGCCCGGGCAGGTTTTATTTAACATTCAAACCTCATTAAAGACATGTGCAATAT
GGCAATTTTACTGGGGATTAAACCCTACCTAGGATTGCTTGCTGGGGCTTAGCAACAGGG
TCCAGTTCACACTTAGCACTAATTAAATACTTTATTGAATAAATACAATACCAAACAAAA
TGCATTCAAA

Sequence 1358

CCGCGGTGGCGGCCGAGGTCAAGTTTCGACCCACGCGTCCGCATTATCCTTCTTGCCATC
TACCCCATGTTAAAGCCAGGCTGATTTGTTCTTGATCTTAAGTGTGACAAAGCCTGCGG
GAAGGAACCACATTCTGAAGGTTTGTGGGCTGTGTGAGATCCAGAGAACCCAAGGGGGTT
TTTTGCTCTTGACAAACGAATGTTAGGTATGACCTATGATGATACAACCTCTGCAAAAT
TGAGGACCAGCCTATTTCTTCATTAGAAATGCAGGAAACCTGCCCG

Sequence 1359

CGCGGTGGCGGCCGAGGTCAACGCTTCGACCCACGCGTCCGGGACCTCAGAATATAAAAA
TATGGTTTTTTTTTCAGACTTACTAGTTTTTTTGATAATTCCTCTACGAATGTTGATT
AACTTAGAAATATGTAAATTTAATATTCAAAACCAAATTATTTTTTAAAGAGGAAAAAA
TATAAACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTTTNAACTTT
AATAGNGTNCGGAAGNTGAATAATTTATGAAGGAGAGGGGTCAGGGTTGATTCTG

Sequence 1360

ACTNCTATAGGGCGAATTGGAGCTCCCGCGGTGGCGGCCGAGGTCTTGAGTCGACCCAC
NCGNCCGGAGATGTATACTGCCACTATAGGAACTATAAGAAAAAGTCAAATGGAAATNTN
ATAAATAAAAACACAGTCACTATAATGAGGAAATACTTTGATANGGNGTCAGTGAACTC
AAAAATNANTCAATNGAACTACTCAAACCTAAACCTCAAAGAGAAAAAAAANGATGGGAG
ATAATTATTTTTAAGAATTGGTCATCAAATGTAGCAACAAGTTCGCCTTATCCTATAT
CATTTGAATTTTCAAAAAATAAGCTCATTATACAATCTTTAAATATTTTGAATAGAACT
GTTTCATGTGTTATTNGTGAAAAT

Sequence 1361

CCGGGCAGGTCTACTCAAGTAGTCTTTACCCCTACTCAAGTAGGGGGTAAAGTGTAGAA
CAAGGAGTTTGATCTGTGTTCAACTGATTGTGAACCATCAATTGAGATAACTCACTACCT
TCAGGCCAGCCAGTTACATACTTTTGAAAAGCCAAGAGTGAAGCAGGGTTGTTTTTCATC
CAATCTTGGTCTTTTTGTTAAAGGCAGCAATAAGATAGGGTGGTTTCGGGCAATCACTT
AGCTAATTGGCTCTCTATAGTCATACCTGGATAATATTTGTAGTCATACCTGGATAATAT
TTAAAGGAAGAACTAAACATAGTCCTTAAGTAGGAACAACCTACAATTTTAACT

Sequence 1362

ACTGTTTTTTTTTATTTGTTGAAGTTGTTGTTGTTATTTCACTCTTTTTCTTATTGGGT
GACCAGACTTGGTAAATCTGTAAAGAAAGTCCATAATTATGGGGAAGATTTCTCTGAA
TTGGCTAAATTCCTGTAGCTGAAAAAAAAAAAAAAAAACCTGCCCGGGCGGCCCGGCC
GGGCAGGTTACAAGCTTCGACCCACGCGTCCGGGAAATTTTAATTAATAATAGGTGAACA
TTTTAAATGACCTAATACATATTTAGTCCACATTGAACTTTGGCATTGTTGNCATTGCCA
TTAAATTTTTGATGGCATTAAATTTTATGCCATTAAATTTTTGATCAGTAGGTAG
CA

Sequence 1363

CCGCGGTGGCGGCCGAGGTACCACGGTTGTCCCCTGAAAGGTGTTGTGTCCCTCACCAGA
CTGGGAGCACCTCAAGGGCAGAACCCATGTCATGTTCTTTTTGATTTCCAGACCTGAA
ACTGCCAGTAAATAAACCTAAAAGTAGAAAGAAAAAAAAAAAAAAAAAAGTGCGGCCG
CCGCACTTTTTTTTTTTTTTTTTTTNGGAAAACCAAACATGCTTTATTTCATTTTTTTC
ACAATTTATTTAAACATCTCANATATACAAAATAGGTACCT

Sequence 1364

CCGGGCAGGTGAGGAGTGTCCTAAAGATTTCCCAAGTCCAGCCCAGAGAAGCTGAAAGCC
TTTCCCCCAGGTGTGGGGCTGAGTTAGATGTGGGTGATAAAGGATGTGGCCTCGAGGCTG
GGAGGCAGCTGGGCAAAGTGGGAAGCCTCCCTACTCCTGAGACAGTGATGGCTCAAATCC
AGGCCAACCTGGAACATGATCCTCAACTTCTCTAAGTTCACCTTTCCAGGTGTGAAATG

TABLE 1

225/467

GGTTGTTCTGGGAATTGAGTGAGCTAATGATACACTCCCTGGCACACAGCGAGCCTCAAA
ACGCTTGTGTCCCCTCCCTACCTCACAGCCCATTITAGAAAGTTTGCTGTCACTTACTTTG
GAGTCAGCAAAAACATATTCTTCCGCAGGATCTTCCGGACGCGTGGGTCTGAAGCTTGAC
CT

Sequence 1365

TACTATAGGGCGNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCC
GATTGATTAATACCTGTCACAGATACATTTTGGTTTACAAATCAATGAACAATGGAGGGA
ACTCTGTCTTAATCTTGGTACGAGACAATGAACCCAGGTACTTACCCACAGACAACGAC
GCCGCTTNACCATGATGATGGACAACAGGCAACTTTTTTTTTGGAGTTTCAGCTTGCTTC
CAACAGGGACGGTGAGTGTGAGGTTTATCCCATTTCTAAGACGATAGAAGTTTTAGCC
TAAGCCGTATTCTAGGTAAGCAGCTGGATTGCAGTTTTGTCTTGAAATNTCCTTAA
TTGNNTNANNCGTTAANATTAACAACTAGCTGGNTNTTAAATTTTTNTCNTTACCCAT
TANAGGTNCCCCANAAATTNAAAATNAAATTTNTGCAATTAATTTTTGAACCTTGCCCC
GGGGTGGGCCCTGGCCCCCCTNGACAANGNTTTTTTTTTTTTTTTTTTTTT

Sequence 1366

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCTTGAGTCG
ACCCACGCGTCCGGAGCTGCTCAATAGTGAGAATCAGGTGATATAATGCATGTGGAAAAA
GAATGTGAAAAATCTAACACTTTAGATTGTATACAGTGTTTTTAAAAAGACACAAAAA
ACTGTCAACATGAGAAACATAAGCAAGTTTTACTCAAGACAAACATCCACGAGTCACAA
CTTCAGTTATTTCCAGTCTTCAAATAACAGAAGGGCAAAGCAAAGGTAACATGCAAA

Sequence 1367

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGATTCTCTGATTAGATTTT
AAACTTTTTTGATGAAATATTGAGTCTTAAGTACTTTAAGATGCCATAATACTGAATACA
GTGCTAAGCAAAATAAATATTGACTAGTTCTCATTTCTATCTTTCAAATATTTCTAATGC
TCCTCTTTTATAGCATGGGCTCAGGCATCAGATGGCGTAGGTCAAGATCTTGCTCTACT
GTTTACTTACGGGAAATACTTTTATGTTGCTAAATCTCAGTTTTCTCTTCTGTAAGACGG
GATTAAAGTACCT

Sequence 1368

CCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGAACATCTTGATTTACAAGGGACAAAA
TGATGCAAATTATATGCTGTCCAACCTACTGGTGAAGTGGATCAGAATGGTCCAAGGACT
GTTAAACAGAGGAAGTATTTACATTCTGAAAACCTTGGGACGCGTGGGTCTGAAGCTTGTA
CACCTCGGCCGAGGTACCTTCTGTCAAAAGACCCAAGCTTCTCCAGCTTCCAGGATAG
CAGTCAGCCAGCTGGAAAAGCCGAAGGGATCAGGGAGCCAAAGGTGACTGGGAAGCTAAA
GCAACAATCACCTAAATTACAGTCTCCAAGAAAGTTGCTTTCTCAGGCAGAATGCCCC
TCCCAAGGGCACAGACACACAAACACCGGCTGTGTTATNCCCATCCAAGACTCAGGCCAC
CCTGAAACCTAAGGACCATCATCAGCCCCCTTGAANGGGCC

Sequence 1369

CCGGGCAGGTCGAGCGGCCGCCCGGGCAGGTTTCTGCATTTCTAATGAAGAAATAGGCT
GGTCTCAATTTTGCAGAAGTTGTATCATCATAGGTACATACCTAACATTCGTTTGTCAAG
AGCAAAAAACCCCTTGGGTTCTCTGGATCTCACACAGCCACAAACCTTCAGAATGTG
GTTCTTCCCGCAGGCTTTGTCACTTAAGATCCAAGAACAAATCAGCCTGGCTTTAAC
ATGGGGTAGATGGCAAGAAGGATAATGCGGACGCGTGGGTCTGAACTTGACCTN

Sequence 1370

CCGCGGTGGCGGCCGCCCGGGCAGGTGTGACCCACGCGTCCGACGACTCACTATAGGGA
TCTAGATCACGAGCGGCCGCCCGGGCAGGTACAGAGATTTAAATGAAATCTTCGAA
AGAATAAATTTGCTTTTCACTCCACTGTATTTTCAAATTT

Sequence 1371

CCGCGGTGGCGGCCGAGGTACTTCAAAGTTATTGCACATACACTTGTCTTACTTTGTATGT
TTTGCAGGATTAACTTTGTATAATCTTTTACAAAATTTTTTTTTCAGTATGCAAGCTT
GCAAGATGAAAATAAAACCTGTTTGCCTGATAAAAAAAAAAAAAAAAAAAGTGCGG
CCGGCCGCCCGGGCAGGTCTTGAGTCGACCCACGCGTCCGCCGGAGAnnnnnnnnnnnnn

Sequence 1377
CCGCGGTGGCGGCCGCCGGGCGAGGTAATCACACAAGACTTTCTTTTCCAAGTGTGCA

TABLE 1
228/467

TTTTAACGTTTTAATTAAATGGATTTATTTAAAAAGACTATAAAATCTGACATCAAGAGA
GATAAAAAAAAAAGACCCATAAGATTTAAATTGACAAATGTAAATGATTGGCTACAATG
TAAAAATACATTTNCCAGCCCCCAAACAAAACACAAGTATAGTAATTATAAAATTTTTGG
ACCTGCCCCG

Sequence 1385

AGGTCCTAGCTTGAGTCGACCCACGCGTCCGGCCGCTGTTCTGATTTCTTATTCTACAAC
AAGGGTCAGCCTACAGGCAAAACACATCCCATTGTCATTTTTTTGTAAATAAGGTTGTA
TTNGGAACATGGCCACTCTCATTTGTTTTCTATTATTTATGGCTGCTTTCACCTACAACC
TGAGTGGTTGCCACAGAACTGTATGGCCTGCAAAGTCTAAAATATTTACTATGTAGCTT
TTCTTTTC

Sequence 1386

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTC
CGAGAAGAGTTTGCAAAATGCAACAAAATATTTAATTACCGGTTGTTAAAACTGGTTTAGC
ACAATTTATATTTTCCCTCTCTTGCCTTTCTTAATTTGCAATAAAAGGTATTGAGCCATT
TTTTAAATGACATTTTGA

Sequence 1387

CTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTT
TTTTTTTTTGCTTCAACAAAAAAGGAATTTATTGGCTCACATAAGTGAAAGCTGAGAAA
TAGATCTCAATTCAGGTCCAATTTGATCCANAAGTTCCCAAGGGCTCCAATAGACTCCCT
NTCACCCTGGTACCTGCCCCG

Sequence 1388

TAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGG
GGAGGACCTAGGCAACGGCCTGAGACTCCGAGACTCTATGTTGAAGATGCCTGGACTAAC
CTACTGAAGATACCGTGGTTTTACCAACAGCCAGCACCATAAGGAAGATATGAATGAAGC
CATCTGAGACCAGCCATCTGGCAGCCAACTGCCAACTGACTGCAAATGCATGAATGATC
CCACTGACACCACGTAGAGCACAAATGAGTTGCCTCCACTGAGCCCAGCCCCAAATTGTTA
TCCTATAAAATCATAAAAACATAAACAGTTGTTTTAAGTCAAAAAAAAAAAAAAAAAAAAA
ATTAAGTGCGACCTGCCCGGNNCGGCCGGCCGCCCGGGCAGGTACCCATTAATTTGCTCA
GATATAGCAGGCTTAATGGTTCTATATTTCAAAGTTTTTAAGAATGGTT

Sequence 1389

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAATAAGCCCACC
CCACTAGGAACTATGTTAAAAAAAAAATCAAGAAAGAATTTAAGGGAGATTACAGTGTTA
CTGTGACACCAAGGAAAACTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGG
GTTGGCCATTNANAAGGAAGCCTGGACAGGTCCCTTGTTCAAAGGTATGACACAAGGTAA
CCCNTAAGCCAAGGCACCCAGACCAGTTTNCATACATAGAAAGTTACAGCTGCTTTTATA
CCCCCTTGCCCCGCCAACGTAGTTAAGAGAACAGCAGCATAAGCGGCTGGCAGAGGCAAG
GAAAGACCAGTAGAGAGAAAAAAGGCCATCTATACCAATTNTAAGTTAATTTAGACTAA
ACAAGGTCTTAATAGCAAAGGATAATTGAAATCCCAAACCTACAAGGTTTTTTAAC

Sequence 1390

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGGGTTTCATGAATGGAAACCTAAG
TAAACTAAGCTCATTAGTGACAGACTTGTCTTCTTCTTATTCTCCAGCAACTCCC
TCACCACCACGCTCCCTGCCTACCATCCCCGGAAGGGTGCTTATTCTTTACAAAGAGA
ATCTAAAAAAAAAAAAAGTGCGGCCGGCCGCCCGGGCAGGTGAGAAAACAGACCATATT
TACTCACATAATTCGCCTTCTACCTTTCACCTGCTTATGTAATAATTTAACACTGTAGAG
GGGACATGGAGGTGACCGGAGTATTTAGTGGGTTCTTGCTCCTGGGCTGGGCAGGTTCA
CAGGCCCCACAGGCCTTGGGCCCCAGCATC

Sequence 1391

CCGCGGTGGCGGCCGAGGTACTCTGAGGTACAGTCAAACCTATGCTTTAGAACCTTCATCT
TTTGCTTTCTTGGGCTTTACTTTCCAAAATGGACTACAGGATAATGAGGCTTTTTTAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAGT

Sequence 1392

TABLE 1
229/467

CCGCGGTGGCGGCCGCACCTGCCCGGGCGGCCGCTCGAGGCCGCACTTTTTTTTTTTTTT
TTTTTTTTTTTTAAAAATTCAAAAAATTAGTTTATTAGCTTAATATAATTAGGTCAATGG
AATCCTGTTTTGATCTCAATACTTCCCATATTGCAATATATAAATGNGACAAATTCAGCT
GTTTTGTGGCATAAATAAGTGTCTAAGCTGGGCAGTTAGTCTACCC

Sequence 1393

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTTTTTTTTTTTTTTTTCT
TTTGAAACAATTTTTCTGAAATTTATTTCTAAAAGTCAGAGACAAAACCTTTAGGAGTGAC
ACATTTATACTAAGCATACATGCGTGAGCAAAAAAATAAGCACAGAATACAAAATGA
AATAGTAAAATTTAATACAGTATTCTGAATACAAGTAGAATACCACTAGATAAGAATTG
TATTTACCTAAGAAATCTATGATAGNGNGGGNGGAGATAAACCAGTTTAGGATAGCCACT
TCACTATTACATTTTAATCAGTGCTGACCAGAAGCTAAAGCAA

Sequence 1394

ACTTAGGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGNGGTACAAATAAGCCACCCCCACT
AGGAACTATGTTAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTACTGTG
ACACCAGGAAAACTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGGTTGG
CCATCAGAAGGAAGCCTGNACAGGTCCCTTGTTCAAAGGTATGACACANGGTAACCCGT
ANGCCAAGGCACCCAGACCAGTTTCCATACATAGAAAGNTACAGCTGCTTTTATACCCCC
TTGCCCCGCCAACGTAGTTAAGAGAACAGCAGCATAAGCGGCTGGCAGAGGCAAGGAAAG
ACCAGTNGAGAGAAAAAAAAGGCCATCTATACCAATTCTAAGTTAATTTAGACTAAACA
A

Sequence 1395

CCGGGCAGGTACAAAAGGGTTCCTCTATATGCCAACTAATCCAAATTTTACTTTTACT
GCAAAAAAACCTTTTTGGCATCAAACTCCATTGTTTCTCTGCACTCTGACACCATCATT
TCAAAGGGGCTCACATAAATGATCACTACTGCTCTCTCCCTAATTTTTGAAAAAGGAGTT
TTGAGAATAAAACAGTGCTTTTATTATTAGCCAACACAAAGTGTGAGAAAATCATTCTG
AGAATTAACATTTTAAGCTAACAGAAATTCAGTATACTTAAACATAATTATATTTAATG
AGTCATTATTTGGATCTAAAACGGACGCGTGGGTGAAGACCTCGGCCGCTCTAGAA

Sequence 1396

CCGGGCAGGTACCAGTTTGAGTTGAAACGGTATGTGACTTCCCCAGCTGCGCCCTGGGCA
GTGACTGCATGCATCACTGAGAGGTCTGTCTACAGCAGATAAACTCCACAGATCACTC
CTCCTGTAATCCCTCTAAGTGCTCCAAGGCAGCAGAAAGGCCAGTGCAATTGAGGCTGGA
AGCAGGAGCAGAGACTCTGGGATATAGTGCGAAAGTCTCTTTCCCTGTAGTTGGGCTAA
TCTGGAAAACTCAAAACCTGGCCTGATTACCGAGGTTTCTTTTATGGATATTTAGTAT
TTAGATAAAATTTTACAGTATTCTTGAAATGAACCAATTAAACACATAGT

Sequence 1397

AGGTACTTTAATCCCGTCTTACAGAAGAGAAAACTGAGATTTAGCAACATAAAAGTATTT
CCCGTAAGTAAACAGTAGAGCCAAGATCTTGACCTACGCCATCTGATACCTGAGCCCATG
CTATAAAAGAGGAGCATTAGAAATATTTGAAAGATAGAAATGAGAACTAGTCAATATTTA
TTTTGCTTAGCACTGTATTAGTATTATGGCATCTTAAAGTAGTTAAGACTCAATATTTT
ATCAAAAAAGTTTAAATCTAATCAGAGAAT

Sequence 1398

AGGTTTGAGTCGACCCACGCGTCCGGATTGATAGCTCTTCTCGATTCCGTGGGTGGTGG
TGCATGGCCGTTCTTAGTTGGTGGAGCGATTTGTCTGGTTAATTCCGATAACGAACGAGA
CTCTGGCATGCTAACTAGTTACGCGGACCTGCCCGGGCGGCCGCGCCGGGCGGCGAGGTGC
AAGATTCTGATCGGTATACAGTGATGTATTTACTAAACAGAGACCTGTGCAGAAATTAC
ATACTATCCATCTAGATAGGTTGTTACACTTTTGCCTATTGATGGAATAGTTCCATTTAT
CAAGTTTATACATCAAAAAGCTTTTGAAGTTCACCAGACTGTCCAT

Sequence 1399

CCGGGCAGGTACTGTAAATCTACTGTAATCCTGTTTTGCAGAATACTGCACGACGGAGAT
TGAGAAGTGAGAGCTCTTATGACATAGATAACATTGTGATTCCCATGTCAATTAGTAGCCC
CAGCTAAATTTAGAGAACTCCAATATAAGGGAAATACTTACTCCCAGGGTATGGTATAC

TABLE 1

230/467

TTTACCATCTTCATANTTTTTCTTTCCCTTCCCTTCCCTTAAAAAACTNAANTTTTTTC
NAAGGTGGAAGAANTTTTTAATTNAANTGGAAAGGGANGCTTCCCTTCTTCCCCAGTTCC
CTTCTTAGCCNATGGGAGGGGGAAACCGGG

Sequence 1400

CCGCGGTGGCGGCCGATTCTCTGATTAGATTTTAACTTTTTTGATGAAATATTGAGTCT
TAACTACTTTAAGATGCCATAATACTGAATACAGTGCTAAGCAAAATAAATATTGACTAG
TTCTCATTTCTATCTTTCAAATATTTCTAATGCTCCTCTTTTATAGCATGGGCTCAGGTA
TCAGATGGCGTAGGTCAAGATCTTGGCTCTACTGTTTACTTACGGGAAATACTTTTATGT
TGCTAAATCTCAGNTTTTCTTCTGTAAAGACGGGATTAAAGTACCT

Sequence 1401

CCGGGCAGGTACCAGTTTGAGTTGAAACGGTATGTGACTTCCCAGCTGCACCCTGGGCA
GNGACTGCATGCATCACTGAGAGGTCTGTCTACAGCAGATAAACTCCACAGATCACTC
CTCCTGTAATCCCTCTAAGTGCTCCAAGGCAGCAGAAAGGCCAGTGCAATTGAGGCTGGA
AGCAGGAGCAGAGACTCTGGGATATAGNGCGAAAGTCTCTTTCCCTGTAGTTGGGCTAA
TCTGGAAAACTCAAAACCTGGCCTGATTACCGAGGTTTCTTTTATGGATATTAGTAT
TTAGATAAAATNTTACAGTATTCTTGAAATA

Sequence 1402

AGGTACTCCCATTTCCCTGAAACAAGCAGCCAGCAACTATCTCAGAAATGTGTCATTTTT
ACTGGTTATAATTCTTAAAAAGCTTGTTTTCTTAAGATATGAAATGCCTGCCAGTATACA
AACTGCTGTAAGTACTTCCCTTTTTGCTTTTAGCGGGGAAAAAATAGCTTAATGACAGCA
TAGAATCATGTAGTAAATATAATTCATTTTTGAAGGTTTCAGCTATATCCTCTTCCATT
TGTTTATTTTAAATGATCTAATTGCAAACATGTCATCACTCCCTTGATGTTTACCTNCTT
GTTATGCATTTTATAGCAGGCTTTATTGTACCC

Sequence 1403

AGGTCCTAGCTTGAGTCGACCCACGCGTCCGATTTTTGCCTCCAGACTACAGATCAGAAA
ACTGAGACTCAGAATGTTTCAATTCCTTGTTTAAAGATCACAAACTAGTTTGAGGTATAA
TGGAAACTGAAAAAAGTGGCGCCGCGCACTTTTTTTTTTTTTTTTTT
CAATATTATTTATCAAAATAAATTTATTTAAAGTATTCAAAGACCACTCAAAGNGTAGC
TGCCCTCAAGACAGATTTTGGCACTCATAACGGGACACTGCAGTTTTCAACACCATAGCA
CTCATTCTATTTACACATCATTTTTAACA

Sequence 1404

AGGTGTTAGTTACCACTTCATTACTGGAGGGCACTGTCACAACTTCTGACTATCCAGAC
TTGAAGCTGGAAGCAAATACAAGTCTGAGGGGCTCTAAGCTGGGAGGTTCTGGCCTCTCC
CTAGCTCTCTATGGCTCTACCTCTCTGCTTGAAGCTCCCTGCACTGCACTCCCATTACTC
TGACTGGGGATAGGACCACTGCTGACAGGGCCCCACCTTCAACTTCTTTCATTGCTCCTC
TTTTCAGGAAATCCCCACCCTGGGGATACTTCAAAAGACCT

Sequence 1405

AGGTGATTTCAGCAGGTCTGGGGTGGGACTGAGAGCTTGCATCTCTAACAAGCTCCCAGCG
AGGCTGATCCTGTTGCTCCAGGGACCACACCTTGAGAACCCTGGTTGGGCATTGATGAG
GTCAACCAGGAGAAGCAGTGTCCCTAGAAGTGGCAGGAGAGAAAGGACAAGGCTAAGAA
ACAGTGAACAGGAGTCAAGTAAATGCAGCTGCCAACAGGCGGGGGTCCCTTGAGTTCACAT
TCTTGGTTCCAGGTGACGTTTCTGGGAGTCAACAACCCTTCTCCTATGAAAAAGAAAAG
GGCCAGACACAGTGGCACACGGCTGTAACC

Sequence 1406

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGTCCCTAAATATTTAAC
TGTTACTTGTAACCTTGTTGTAATTTATTATTTATTTTAAATCAAAATTCTGAATATTTTCA
TTAAATGAAAGTTGCAAAAAAAGTGGCGCCCGGCCGCGCCGGGAGGT
ACATACCTCCTTGCAAAATGGAGGGGAATTCATTTTCACTGAGGAGTGTCTTATGAGT
TATAAAACCATGCTGGTATATGGCTTCAAGTTGTAATAAGTGAAGTGAAGTGAAGTGAAGT
AATAGGGGATGGTCCAGGATCTCCACTGATAAGACTGTTTTTAAAGTAACTTAAAGGAC

Sequence 1407

TABLE 1

231/467

AGGTACTCAATCTAATCCAAAATTTTCTTTCTTAGCAATCTATTTTCTGTATTTAGAAAA
ATGTTTTTTATTTCAAAGAGCCTCTCAAAGAGCATTTACGTATCTTTTACTGTTTTCT
CTCCACCTCCAAGGGGTCTGTCTAGATCAGTGCGGACGCGTGGGTCTGAAGACCTGCCCGG
GCGGCCGCGCCCGGGCAGGTAAGTACTGAGGACAAATCAGTTCTCTGTGACCAGACATGAGA
AGGTTGCCAATGGGCTGTTGGGCGACCAAGGCCTTCCCGGAGTCTTCGTCTCTATGAGC
TCTCGCCCATGATGGTGAAGCTGACGGAGAAGCACAGGTCTTCACCCACTT

Sequence 1408

AGGTACATATCACACATTTTCCAAAATTTGAGACCACTAATGTTTTTTAATTTCAAATATGT
ATATAAATATGTATTCTTATTTCCAATTATTTTCTTGGCATGAATTCCTAGAAATTGATC
TATTTAGTATAAGTGCTTTTTTAGCTATATGTCCACTAGTATGGTATGAGAATGCCCTGT
TTATGCCAGTATTATCATCATTGAATATTTACTGCTGATGTTGTGGTAATACATTTAAA
CCAATGTGATGGGGCAAAAAAATTATTTTTTACTTACATCTTTAAAATTACTGGNGATC
TCTGNTATTGACAAGCTGGGCATANAAAAAGTAAATTAATAGAATT

Sequence 1409

CCGGGCAGGTCTGGACGCGTGGGTCTGAAGCTTGTACAAAAACCCAAGTATCACCTGAATTA
CAATTATCTTAAAATTTGTCCTTAAATAGCTTACTCTTGGAAGATTTGTTTCTATGTAG
ACATTATGGTAAAAGTTACTCTGAAACTCTTTTCTTTAGTTATCTGTTTATTCTGAGCTC
AACAAGATTGAAGTAAGTTTTCGGGAGCTACAGAAATTAATCAAGAAAAGAATAATAGA
GGATTATATTCAATTGAAGTGCTGGAGCTCTTCTGATATTATCAATTCTCCTTCATAGAC
ATTTTATAAAGCTCTTTTATGTGAAGCTCTTGCTTCATCCAGGCAAG

Sequence 1410

AGGTCTTCGACCCACGCGTCCGTTTTAGATCCAAATAATGACTCATTAAATATAATTATG
TTTTAAGTATACTGAATTTCTGTTAGCTTAAATGTTAATCTCAGGAATGATTTTCTCA
CACTTTGTGTTGGCTAATAATAAAGCACTGTTTTATTCTCAAAACTCCTTTTTCAAAAA
TTAGGGAGAGAGCAGTAGTGATCATTTTTATGTGAGCCCTTTGAAATGATGGTGTGAGAG
NGCAGAGAANCAATGGGAGTTTTGATGCCAAAAAGGTTTTTTTTGCAGTNAAAGTAAAAA
TTTGAATTAGTTGGCATTATAGAGGAACCCCTTTTTGTACCTGGCCCGGGCGGCC

Sequence 1411

AGGTGATTCAGCAGGTCTGGGGTGGGACTGAGAGCTTGCATCTCTAACAAGCTCCCAGCG
AGGCTGATCCTGTTGCTCCAGGGACACACCTTGAGAACCACTGGTTGGGCATTGATGAG
GTCAACCAGGAGAAGCAGTGTCCTTGAAGTGGCAGGAGAGAAAGGACAAGGCTAAGAA
ACAGTGAACAGGAGTCAAGTAAATGCAGCTGCCAACAGGCGGGGGTCTTGAGTTCACAT
TCTTGGTTCCAGGTGACGTTTCTGGGAGTCAACAACCCCTTCTCCTATGAAAAAGAAA

Sequence 1412

CCGGGCAGGTGCCTAATATATTTACTCTCTGGTCCTTTACAGGAAAAGTTTGCCAACCTC
TGGCTTAGATGATCACCTGAGGCCAAGGAGCCTCGCCCTTGAGCACAAGACTATGTAGTC
AGTAAAGCACAAACAAAATTGGGGCTTTCCCTAGCAAGGTTGGAAAGGCGGAGAAGAAAT
GGATTTGGATAGGTAGTCAACAATGTCTGTTTTATGTTACCACACATTTTCTCGAGAAAT
TTCAATCAGCTCTCTGAGAACAGATTCTTTAAATGAATGTTCATAGGTAACAGCAAC
TCATGCATCAATGTTGCAAAGTGAGCTCATTTTACATTGCTTCAG

Sequence 1413

AGGTCAAGCTTCGNTCCACGCGTCCGGGAAAAACGGGGTTACTAGTAGCCGCCCATAGCC
TGCAACCTTTGCACTCCACTGTGCAATGCTGGCCCTGCACGCTGGGGGCTGTTNGCCCT
GGCCCCCTTTGGTTCCTGGCCCCCTTAAANAACAGGCNGGTTTTATTAAACCCCAANNNN
CCCGGNTTANAAGGGGAATTNAAAAAAGGGCCCCGGCTTTNGNAAAAAAAAAAAA

Sequence 1414

NCNGNCCAGGTCTACTCAAGTAGTCTTTACCCCTACTCAAGTAGGGGGTAAAGNGTAGA
ACANGGAGTTTTGATCTGTGTTCAACATGATTGCGAACCATCAATTGAGATAACTCACTA
CCTTCAGGCCAGCCAGNTACATACTTTGAAAAGCCAAGAGTGAAGCANGGTTGATNTTC
ATCCAATTCTTGNNCTTTTTGTTAAAGGCANNAATAAGANAGGGTGGNTNCGGGCAATCA
CTTAGCTAA

TABLE 1
232/467

Sequence 1415

AGGTCCTTCGACCCACGCGTCCGTTTTAGATCCAAATAATGACTCATTAAATATAATTATG
TTTTAAGTATACTGAATTTCTGTTAGCTTAAATGTTAATTCTCAGGAATGATTTTCTCA
CACTTTGTGTTGGCTAATAATAAAAGCACTGTTTTATTCTCAAACTCCTTTTTCAAAA
TTAGGGAGAGAGCAGTAGTGATCATTTATGTGAGCCCCCTTTGAAATGATGGTGTCAGAGT
GCAGAGAAACAATGGAGTTTTGATGCCAAAAGGTTTTTTGTCAGTAAAAGTAAAAATTT
GGAATTAGTTGGCATATAGAGGAACCTTTTGTACCTGCCCGGGCGG

Sequence 1416

AGGTGTACAAGCTTCGACCCACGCGTCCGGGATGAGTTTGTATGTGTAAAGTGCTTGAAA
CAGTGCCTGCCACATACTAAGTGTTGGATAAGTGTTTATTAAAAA
AAGTGCNGGCCGGCCCGGGCAGGTCAGATGATTGCAGAATTTATGTGATTACTGGGT
ACTCTAATGGTAAGGAGAAATTAAGACCAGCTAGTTGTTAATCTTAACTTTTAGTCATTA
AGGAGAATTTCCAAGACAAAACCTGCAATCCAGCTGCTTACCTAGGAATACGGCTTAGGCT
GAAAACCTTCTATCGTCTTAGAAATGGGA

Sequence 1417

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGTAATCCTGTGAGAAAG
ACAGGACAGAAACCACTGTGCCTATTTTACAGATACGAAAACCTGAGGCACAGGTAAAGGG
GCTTGTCTGTAGTCCCATAGCTAGCAGATGGCTGGAGCCAAGACTGAGGCTCGTTCTTCA
ATGCTGAGCCAGGGCTCCTTCCGCTGCACCACAAGAACGCTAGACCACTCGCCACCAGCC
TTCTCATTCCCTCTTCCCTCATTCTAATCATTTCTAGCTGGCTGGCCTCCACAGAGCATA
GGAAACAGCCAGGGCCGGGCACGGTGGCTCATGCCTGTAATCTCAACACTCTGGGAGGC
CGAGCCGGGTGGATCACCTGAGGTCAGGAATTCGAGACCAGCCTGGCCAACATGTTAAAA
CCCCATCTCTACTAAAAATATAAAATTAGCCAGGCATGGTGGCGCACACCTGTAATCCC
AGCTACTCAAGAGGCTGAGGCAGGAGAATTGCTTAAATCTGGGAGGCGGAAGTT

Sequence 1418

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGNCCGAGGNCAAAAGAGAGACAAAAGG
GTTCTCTTGGAAACAAGAAGAGTGACTCCAGATGTGGCCTGAATAATTGCCATGTTAAGT
TAATGCAAAAGATCAGAACAGGGCTACATTTGCACAGGCAGTTTCTCTCCGGGCCGTAGT
TTTCACTGATGATCACCTTTACAGCATTTTCCCCAACCAGCATTTCACTTAGTCTTCTC
TATACCCAGCACCTCCCCCGGCACCCCCGGCAAGCCCACTATCACTTCCGACTTCCAACG
TGGCATCCGTGAGATCTGTCCACATTAGGCGAAGCAGGAGAACAACCTGAGAGCAGCAGGAT
GGGTTTGGAAAGAGCATGCCTCTGGAAACACAGCTTCTGGGAATTCACATGAGGCCAGT
CCTACAGAGAGCAAGATGCACCCAGGATTTCTTCATTTTCTAATAGATGTGGGAGTGCT
CCATTTTCCCCGACAGCGAATTTCCCTGAGAAACGATACTAGACCCTGGGTTTGCCAC
CTTGTAACCTCTTCTTATCTNCTCCTTTTCATCCCTAATTCA

Sequence 1419

CCGCGGTGGCGGCCGCCCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGT
CACCACACTCTACAGAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAA
CTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCC
CAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCTGAATGCCTCATTCCATTGGCTGGG
CTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACC
AACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATA
TTCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATATTGA
GGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATT

Sequence 1420

CCGCGGTGGCGGCCGAGGTACACTGTAAATAGCCTTTACCAAACGTGTTTGACAAGGACC
ATAATTAACATCACTTAGTGAATTGTGATAAAGAAAAAAGCCATGATTTATTGATGT
GATTGGCTTGTTTTATGTGGCGCCAAGAACGAACCTGTTTAGCAGCTGTAAACCAATGGT
ACGCGGGGGAGGCGAACAATGGCGGAGCTGGGCGAAGCCGATGAAGCGGAGTTGCAGCGC
CTGGTGGCCGCCGAGCAGCAGAAGGCGCAGTTTACTGCACAGGTGCATCACTTCATGGAG
TTATGTTGGGATAAATGTGTGGAGAAGCCAGGGAATCGCCTAGACTCTCGCACTGAAAAAT

TABLE 1

233/467

TGTCTCTCCAGCTGTGTAGACCGCTTCATTGACACCACTCTTGCCATCACCAGTCGGTTT
GCCCAGATTGTACCTGCCCCGGCCGCTCTAGAACTA

Sequence 1421

CCCCGCGGTGGCGGCCGAGGTACTTTGGGAGACCACCCCCAGCTATGGTTCCATACACTT
ANACTGCGCCCAGCTACAGNTTNATACACTTNGGACAAANTATCTGATAAAATAGAGAAA
AAAATCTTATTTACTATAGCATTACATAATAATTTNTGAGAAAAAATTAACCAGGGAT
GTAAAAAACCTTTACAATAAAAAATAAATAAAAAAGGAAGATCCAAATAAATTTTAAAT
ATTTTATGTCTTTGGATTGAAAGAATAAATATTAATAAAGTGCCATATTATCCAAAGTGA
TCTATAGATTCAATACACTTCCTATCAAAATTGCAGTATTTTTTTCACAGTAATGGAAAT
TCAATTCTAAATTTACATGAAACTAAAAATAAACTTTGAATAGCCAAAACAGTCTTGAGG
AAAAGGAACAAGGCAGAAGAATATCATACTTACAATTTCAATCTATATTTGAAGACTTTA
TAGAANTAAAA

Sequence 1422

CGGGCAGGTACGATGGGAGGACAGCTTTGTAGAAAGGACATTATCCAGCTAATAGCAAAC
TTTGTGGATCCCAATCCGAGATTTCCCTTGCTGAAAGACAAGAAAGTATCTCATATAAAA
GTGCTGTAGCAAAGTATTTGTATACTCCAGAAATAAGCTTCTGTAATTCTTAGCTGCCAAT
GTGTTCAAGCGTGATGACTCGGTTTCTGTTTCTCTGAACATCAATACTAGGGTCTGTATA
ATTTCAATGCATGCCACCAGCTTCATCAACCTT

Sequence 1423

AGGTACAATCAGAATGCTGCATTCTCCAGCCATAAAGATCGCTCCCTCTTCTTTTCAAAC
ATCCCTGTCCCTCAAGGTCTAGCTCAAGACGGTCACCTTAAGAAAAGCTCCCTTTGTGCGA
GCAGTGACTCCATACCAGGCCCTGCTTTAAACGCTTTATCTGCATTATCTTACTTGATTC
TCGCAATAGCCCTGGGTGGTAGGTGCAATTATTATCTCCAGTTTATAAAGAAGATACTG
AGGGTCAGAGAAGTTAAGTGACCGGCTCAAGGTGTCACATTCAGTAAGCGTTGAAGGGGC
CTGTGTTGGTCTGTCTTGAAGATGCCCTTACCGACTACACTTTCAATGATTTTCTGCC
TTGAACCTGGCCCCATGACTAAA

Sequence 1424

NNCAAACCTCCTATGCTTTCCTTGGCATCGGCTACACATCATAGTATTCATTGCCTCCTT
GAGGTCATCTTGCAGCTTGGACAGAACTCATTTACTGACCGGCTCAGCTCATTCTCTGC
CATTCGTTTCATCTCATACTCCTTTGCTTTTCAGCATTGCTGACAATGTCCCAAGCTGC
TCGCAAAACCTTGAAGGCCTCCTCAGCCCGGGGATGATGATTTTTTGTGAGGATGAACCAT
CACTGCCAGCTGTCTATAG

Sequence 1425

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTGAAGTATTCCCC
AATGGCTCTTTGTGCAGCCGAGCAGCTGTTGAGACTTATGAGCAGACAGGAAGTCCCA
GAGGGCAATGGTGTGTTTAACTGGCATCTGTTTAAAGGCCTTTAACACGTGAATCGTCTG
ATCACCCATTTGCAGGATGTCTTGAGTATACACATTCAGCTGCATGTTTGGATCCCCACC
AGCTGTGCTCAGAAACCCAGAGTGACTTCTACGACAGACAGCACTTCACAGGCATCGCT
GTAGGACTGCAGCTGTCCACTGATGGCACTAATGACCGAGCTGGGGAGGGAGTCCTGGGA
AATGAAAAGCAGGAGAGGGATGTCTGTGGGCTGGGTTTCTGGCATCTCACCACCTGGTAA
GAGAGCCGAGCCCCCTTCACTGCCAAGCCACATGCC

Sequence 1426

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTGGGCCAAGGCTGCAAT
CAGTGATTGAGCCGACTGCTCTTTGAGTCCAGATGTTGATCCAGTTCTTGCTTTTCAACG
AGAAGGATTTGGACGTCAGAGTATGTGAGAAAACGCACAAAGCAATTTTTCAGATGCCAG
TCAATTGGATTTGTTAAACACGAAAATCAAAAAGCATGGATTTAGGTATAGCTGACGA
GACTAAACTCAATACAGTGGATGACCAGAAAGCAGGTTCTCCCAGCAGAGATGTGGGTCC
TTCCCTGGGTCTGAAGAAGTCAAGCTCGTTGGAGAGTCTGCAGACCGCAGTTGCCGAGGT
GACTTTGAATGGGGATATTCCTTCCATCGTCCA

Sequence 1427

AATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACATCCAGGAC

TABLE 1

234/467

AAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTC
ACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTG
GACCCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGG
CTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTAT
CAACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTA
CCATATTCCCAGGACAAAGCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAAT
ATTGAGGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATTTTCTGAC
TGTCAGTTTCAACATTCAAGGTCTGTCCCCAACAGGCACCAC

Sequence 1428

AGGTACAAATAGATACCTTCAAGGAGAATGAAAACGGGGAATATACTGAGCACTTACACT
CGGCCAGCTGCCAGATCAAAGTTTTCAAGCCCAAAGGTGCAGACAGAAAGCAAAAACGG
ATAGGGAAAAAATGGAGAAACGAACACCTCATGAAAAGGAGAAATATCAGCCTTCCTATG
AGACAACCATACTCACAGAGGTAAAAAGATTTCTTTTGGTGACAATTCAGTTCATAATT
TTTAATCTTAAAAATTCATCACTTCCAAACTGGTCAGAAATTTACTTCTCCTAAGCCTTGA
GGGACACAGTATCACATGGATTCTGTGTCCAGCGGCCTTAACAGGAAGATTGCTTTAGAA
TTTGGCACGAACCATGCCACTGTCTCTGT

Sequence 1429

NCNGNCCAGGTACTCNNNNACANTGNAAACTNNTCANGNGCCCATCATTGCTGGATTTGT
ATTTAACATTATGTTTCACCCAGACAACAGCTCAGAGAACTGGGCAATGGCTGCTNATGT
GTTGAGCCCGGGGCATACAGGATGAAGAGGGACAATGAGAGGGAATGAATTCTATTCTANA
CACCTTGAGTTTGAGGAACCTATGGAATGTCCAGGAGGCAACTAAATGAAACAGCCTGT
GGTAGACAGAATAATGGCCCCAAAGATGTCTACAGCCTAATCCCAGGAGCCTGTGAAAAT
GTTCCCTTCGCATGGTAAAGGGATGTGGCAGATATGATTAAAGCTAAGGATCTTGAGATGG
AGAGTTTATCCAGGATTATCCAGGTGTGCCAGTATAAT

Sequence 1430

AGGTACGCGGGACACAGGGTCCTGTGCAACANGNGGACTAACAGTAACACCGCCACGCC
GGCAGCAAAGCTCATTTTGGTCCCGCCCCGTTCTCTTTCTCTTTTAACTCCTTCCCT
CTTTGCGGATTCTAGAACGGAACCTTTTTTTAATTCTTCCAGTAGAAACGTAGGAACAA
TTTCGTGAACGCAATCNGGAGTGCCCAACATGGC

Sequence 1431

AGGTACCCCTGTTTAAACAAGGGGTAGGGGCTTCTGAGACTGTTTCCTCTACAGAGTAAG
GGTTCGTTCAACCTTTTCCGTGGCCTGCCAAGAACTCAACTCCATGTTCCCTCACTTCCT
GTAATTGACCTTGTCCAGGACTTTCTGACCTTGGAGAATTCACCTTTGCTCTTTCTGCTG
CTTCGTGCATTCTTCCACCAAATGTCTTAACTGACTGGGCTCCTTTCCAACTCAAGGGC
TTTGCCAAATGCCACCAGCTCAGGGAGGCCTTTNCTGGCCATGACACTTGAAGTTGCAAC
ACTCCCCCGCAGTCTCCCGTGCCCCAGATGTAAGTTCCATGAGGGCAAGCCCTGTGCTTT
TACCACCATATCCCCAGCATCTTGAGCTGTGCCTGGCCCAAGAAATATTTGTTGAATGAA
TGAATTTAAAGGGGATATTCATGANGGCTTACACATTCTCAATGGGT

Sequence 1432

GGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGTACTTTTTTTTTCTTTTT
CTTTTTTTTTTTTTTAAAGTTTTTGGGATCGTGTCTCACTCCTGTTGCGCATGCCTGTA
GTCCCAGCTACTCAGGAGGCTGAGGCAGGATAATTGCTTGAACCCGGGAGGTGGAGGTTG
CAGTGAGCCGAGATCATGCCACTGCACTCCAGCCTGGGCAACAGAGTGAGACTTTGTCTT
CGGAAAAAAAAAAAAAAAAAGATTTGGCGGATGAAAATAACCAGAATGAAAATAGCTNGAA
AACTCANCAAGCAGGAAGCTCCCCTTCTCACCTTTTGTTCCTTGCCGATAGAATCAGT
CACTATTAGAAAAAATGAAAGACGCTCTGTTTAAACAATGATGACAGCAGTACCT

Sequence 1433

GCGGTGGCGGCCGAGGTACTTCCCTTTTAAAGAGATGAGTCACCGCAACTGAACTTCTCT
ATTTCTTTTCTTTTCTGATTGTTCTCCAGAATTAGGACTAGTAACAGTCCTGAANNCTTG
TNTTTCCTTATCTAGAAAACCTCAGTATCTTCCCTTCCGTTTGTCTTAAATATTAGTACA
CGCTTCTCAAGCCTAGCCGATTAGAAGGGGCTGCCGGGCTTCCACCACACCTCATCGAG

TABLE 1

235/467

GNAATGGTTTTNTGGNNAAAAAGCCCATGGAAATACTGAGCCCATGCCNCTCACGTTGNA
AAAGCCCCGTTCCCTTGCC

Sequence 1434

AGCTCCCCGCGGTGGCGTAACTTATCTCATTTTAGATNAGTTTGCAAAGAGAGTTGGTGG
CTAAGGCCATAGCTTAGCCTCCTGACCCCTACCTTCCCACGTTCTTCCAAGAGATTCTC
CTCAGGAATAACACTTGCAAGGGAGTTCTGATGAAGTGGATTCTTGTTATTCTAGGAAT
AGGCCTACATGGTGCACCTGGCAATGTGAGATTATACCTCAGCATTTCAAAGAGCATAAA
AATCTAGAGCTGGGGGGTTTAAACATGACAAACCTAATTTTAAGTAGGCAGACAAATAT
TTAAATTTTCCCCTACCCCTGTTTCTACATCGGTCCATTGAGACTCTGCACCATCTGGT
TGGGCAGGTGCTACTGTGGAAGATCTTCGTTTTCGACTACCATTGGTGATTCTTGCTTT
AAAGTCTCAATATCAGTAACTGAACAGATTNCCACCACCCCTGTTTTATAAATATCAC
CCTTAATTAGTTTAAGTTTCAATCTCCCCATCGGAGGCTAGTTCCTGGTGGGTGAGCATG
TACCTGCCCNCGGCGGTCTANAACCTAAGTGGATCCCC

Sequence 1435

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTNTTTTT
TTTTTTTTTTTTTTTTTGGAGCCAAAATTGTGTGCATTCTACTGGGAAACACAGTGGCC
AAATCCTTTTGAATTGTTTCCTTCTAGAGACTTTAACTCTTCTGACTGCAAATCTTAGTG
TCCTGTGAGTATTAGTTGATTAATTATACTTGCTGCTTAGTGAAATACAGCCAGCTATAG
GTATCTTCTGGAGTAGCTCAACACAACCTTTTCTTCTGCTAGAGTGACTCTTGCTAACAGA
ACCCAAAGATGCGCACATATACCCACAGGAGCTGGAGGTCCCTCGCATGCTCCTCTCGTG
CCAGCCTTGGCCTTACCCTTCACTCTCTCCCTCCAGGAGCCGTCGGTACCTCGG

Sequence 1436

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAAGATTTGTCTTGCTC
ACCTCTTACCAAATCCAAGAATGGTTTCTATCCAGTGAATGGCAAATTCATCTGATAGGT
AAGGGAATAATGGGTCAAATGGTAGCAAACACTTCTTTCAAATTTCTACTAAAGACTT
GCTGTTGTTTTTCTTATAAAGGGGCAATTTCAACATACATCTTTTAAAGGAATCTCT
AGAAATTTGAGTGACTTTTGGCCATAATCCTGTTTGATATATTTTGGTCAGCTGCTCA
AAACAAACATTCTCCTTGTAAGGTTATCTATCTGAAAGATACTAATTCATTTAAAGCAGC
TGCAGGTGAACAACCTAAAGATGACATGATTTGGGAGAAGAGGAAGGCAGATTACTGAAC
TGACAAGTGACCCAAAGCATAATTAGGTTTGTGCACATGGTAGCATGGAGGTCCACACC
TACCTTCTACAGCGTATTAATAAAGAATATTGTCTTTGAAACATCTTCTAGCACCTTTT
TAATAAAACAAAATTTCCCATCTTCAATTCTATTTTTTCCCAAATCTACCTTTAAAAAA
TTGT

Sequence 1437

CCGCGGTGGCGGCCGAGGTACAATAAACAGGGAATGAGAACTATTTACATGGAAGTTTCT
TTCTCATGATGCGGTGGAGAAGCCTCGGCCACTTGGTTCTGCCAGATGTTCTGGGGTTA
CTGTAATGGGAAGGACAGGCAGAGCTAAACAAGGTAGGAGAATCGCCCCCTTTTTTGA
ATGTTTAAAGAGTTTGCTGCAGTATGCTGCATTCCATGTGTGCTGCTTACGGGAGCCAGG
GAAACTGGGATTCCACTAATTCAATTGTAATACTTGCAGGGGACCCCTGGAGTTTTACGTA
ACATTTTGATTTGGGAAAAAAAAAAAAAAAAANANTGTTCTGCCCCGGGCG

Sequence 1438

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTGCCAGGC
ATGCTCCTGCCTTGGGCAGAGTGATATGTGTGAGTGACCTGCCCTTCCACAGCCTAG
AACGTTCTCCTCCAGACAGCACATATGGCCTGCTCTCTCACTTCTTAAGGTCTTTATT
CAAAAGTGACTTTCTCAGTGAAGCCCTGTCTGCTCACCCTGCGTAAAATTTAGCTCTTC
TTTCTATCTCTTCCCAGATTTTTTTTCTCCTTCATGTTGTTGGTGTCTAAGGTTTAT
CATCTATTTGCTAATGGTCAGTAGAATGTAACCTCCACGTAAGCAAGGAGTTTGTCTG
TTTTGTTTCATGTCTATGTCCTTAGTGCCTGGAGCATTCCCTAGTATGCAGTAGGTGCTCA
ATAAATGTCAGTTGGATTAATGGCTGAAAGAAAGGTCACCGCTATAAGGATGGAGTCAGA
GAACAAACACAGTTAATTCCTGGTCCACTGTTTTTGCTTCCACTAAATTGATTTGGTCT
ACGGCTTCTCCGCTTGCCCTGGAACCTGCTCAGAACACTGCTCCCTTCTCCTTCTTCTT

TABLE 1
236/467

CTCCCTCCGGATAAATTCT

Sequence 1439

CCGGGCAGGTACCGCGGGGGGCCGTGGTCAGAGCGAGCTTCGGAGAAGCAGTGGTGGGT
CCATGTGATGGTGGAGTAGGAGGCAGGTCTCCGCGGTTCATCTGTGTTGCTCTAAATGAC
ACTGTTTCATTATTTTGATGGCTGGAGAATATTTCTAAGTGTATGTATATGAAGAAGTT
TCTTGATCTCTTTATCTGTGGATGAACAGCTACTTTGAAACATATGGTACCTCTGTGGTC
AGACCATTGGCCAAGCTTGTGAGGCCTCCTGTTCAAGTATACGGTATTGAAGGTCGCTAT
GCCACAGCTCTTTATTCTGCTGCATCAAAACAGAATAAGCTGGAGCAAGTAGAAAAGGAA
GTTGTTGAGAAGTAGCACAAATCCTGAAGGAACCCAAAGTGGCTGCTTCTGTTTTGAATC
CC

Sequence 1440

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCANGGTACGCGGGTGC
TTCATAGCCGCGGACACAACCTTGGGCCACAGTTAACCAGAGGAGGAAGGCAGAGCGTGCT
GAGCAGAGCACCAAGGAAGAGAGCTCGGCTAGCCGGAAGGTCCGAATGGATTATTTGG
TGAGGCCAAGGAACCCACTGCCTCCACGGTGTTCTCCAGGAGGCTCCTCCCTTCACTAA
GGCAGCAAGGAGTGCCTGGTGAGGGGAAGAATTGTTGTCATCCTTTCTCTACGACTCCA
AGAGAACTTTATACTGGAGGAAGAATATTCTACCCTTTGGGATGCTTCCAAAGAAATG
GGATACCAAAGGAGTGAACCTTCAGGTCAATTGGAAGTGGCCAAGCTGGAGGCGACCTATGG
AGACATGACCTTCAGTTCCTCCTGAGATCGATAAAGCAAAAAAAAAAAAAAAAAAAGT
ACCT

Sequence 1441

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGATATTGTCAATGCGCAACATGGAGAG
ACTTTAAACAAATGCTAGGGATTAGAGTATAGATCAGATAGCTGGCAAATCTATAGGAA
GGGAAAAGTAATTTTAAACACACAGCATTGTTTCTGCTGCTCTATCACAATAGCTAGG
TTTTAAATAAGTAGGCTTTATACCAAGCCATAAAATGAATTGCTGGGGCTCTTTGGGA
CTAGGGAAGGCGGAAATTTTAGATATTGCTGTTGGCTTAGTGAAATGCATGCTTACCC
GGTCACCTGTGGCTCCAGCAGGACCAGGGGCACCTACAGCACCAGGAGCACCCTAGTACC
T

Sequence 1442

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCTTATTACATA
TGATTTTTATTAGTTTCTGGAGGCAAATTTAATTTTATTTTAAAATCAAATCTATTTT
AAAAGAAATAGTTCTCAAAAAGACAACGATGACTGGGTGTGGTGGTGTGTGCCTGTAGTT
CAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTTGAGGCCAGTTCAGTCTAGCCTGGG
TAACATAGCAGGACCCTGTCCCTAAATAATAAAAAATTTAA

Sequence 1443

CCGCGGTGGCGGCCCGCCGGGCAGGTACTAGGGTGCTCCTGGTGCTGTAGGTGCCCTGG
TCCTGCTGGAGCCACAGGTGACCGGGTAAGCATGCATTTTCACTAAGCCAACAGCAATAT
CTAAAATTTCCCGCCTTCCCTAGTCCCAAAGAGCCCCAGCAATTCATTTTTATGGCTTGG
TATAAAGCCTACTTATTTAAAACCTAGCTATTGTGATAGAGCAGCAGGAAACAAATGCT
GTGTGTTTAAATTAATTTTCCCTTCTATAGATTGCCAGCTATCTGATCTATACTCTA
ATCCCTAGCATTGTTTTAAAGTCTCTCCATGTTGCGCATTAAACAATATCCTAATGCACT
GAGGCTTCTCAAAGCCTTCAATTATTACCAAAAAAAAAAAAAANNTTNNNAGGTACCT

Sequence 1444

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACAAAGACCAAT
TCCTTCTTAACCTGGATTCCACTGTCTTGGTGAAACTACTTTGATGGAACCTACCAGA
TGCTTTATCTTTTGGTTAAAGGAACATACCTGTNGAAATTCACACTGCCACAGNGATAT
TTGTTTCTTTCCAATTATNTGTTGCAACANAAGATGACTTTTATACCTCTCACAATCTGG
NTAAAATCTTGCTTGTTCCTAAAGATACCAAGTGACAAAATCCGTATCAGCAAAATAA
GAGGGAAGAGTCTGAGGAGGAAGAGATCCATGGGATTTCATAATTGAAATAGAGATTGGAG
ACCTCCTATTTCAGTTCATAAGCAATGGCACCACAGGTGAGATGCAGTTATCTGAACTCC
AGGAANTTGCTGGTTCTCTTGACAAGCTGTNATTTTAGGAAA

Sequence 1445

Sequence 1446

Sequence 1447

Sequence 1448

Sequence 1449

Sequence 1450

CCGCGGTGGCGGCCGAGGTACAAATTGNCGTTTTTATTCCTCTTATTGGGATATCATTTT

TABLE 1

238/467

AAAACTTTATTGGGTTTTATTGTTGNTGNNTGATCCCTAACCTACAAAGAGCCTTCC
TATCCCCCTCGCTGTTGGAGCAAACCTATTACCTTACTTCCAGCAAGCAAAGTGCTTTG
ACTTCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAAGTGTCTTTTGCAATTTTGCC
GCTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGATCA
AATATAGAAAGTTGATATTCAACCTCACAAGGGCTCTCAAAGTATAATCTTTCTATAGCC
AACTGCTAATGCAAATTAACATATTTTCAATTTAACATGATTTCAAATCAGTTTTTCA
TACTACCCTTTGCTGGAAGAACTAAAAATATAGCAAATGCAGAACCACAAACAATTGCA
ATGGGGTAGAAACATTGTAAATATTTACTCTTTGCAAACCTGGNGGTATTTTATTTTGG
CTTCATTTCAATCATTGNAGTATATTCTTAT

Sequence 1451

CCCCGCGGTGGCGGCCGNGGNACAAATTGTCGNTNNTATTCTCTTATTGGGATATCATN
TTAAAACTTTATTGGGTTNTTATTGTTGNTGTGGGNTCCCTAACCTACAAAGAGCCTT
CCTATCCCCCTCGCTGNTGGAGCAAACCTATTACCTTACTTCCAGCAAGCAAAGTGCTT
TGACTNCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAAGTGGTCTTTNNCATTTTG
CCNCTGNGATATGNCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGAN
CAAATATNGAAAGTTGNTATTCAACCTCACANGGGCTCTCAAAGTATAATCTTTCTATAG
CCAAGTCTAATGCAAATTAACATATTTTCAATNTAACATGATTTCAAATCAGATTTT
CATACTACCCTTTGCTGGAAGAACTAAAAATAT

Sequence 1452

CCCCGCGGTGGCGGCCGAGGTACAAATTGTCGTTTTATTCTCTTATTGGGATATCATT
TTAAAACTTTATTGGGTTTTATTGTTGNTGTNGGGNCCNTAACCTACAAAGAGCCTT
CCTATCCCCCTCGCTGTTGGAGCAAACCTATTACCTTACTTCCAGCAAGCAAAGTGCTT
TGACTTCTTGCTTCANTCATCAGCCAGCAAGAGGGAACAAAAGTGTCTTTTGCAATTTG
CCGCTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGAT
CAAATATAGAAAGTTGATATTCAACCTCACANGGGCTCTCAAAGTATAATCTTTCTATAG
CCAAGTCTAATGCAAATTAACATATTTTCAATTTAACATGATTTCAAATCAGTTTTT
CATACTACCCTTTGCTGGAAGAAA

Sequence 1453

GAANCCCCCTTTNGACGAANANNCGCGAATCGNGAGCTCCACCGNNGGCGGGCCCGAG
GGGGACNANGANTTTTCTTGNNCNTTTTTTTTNNAAAAACNNGNGACTATTTAATCCATC
TAAAAATACAAATCAGGNAANGGGGGGAACCATAGGAAAAATCCTCCACCTNTAACAGAG
CCGAAGNTACNNGGGCTTTCTGCTTGCTCCAAANAAATCCCAAAGGGCTTGGATAGTTTGN
GGAANGGGGAATTATCTGTGTCTTCAAACCTAACTCCCAAGGATACCTCAAAGGACATTAA
AGGTNTACCACCACCATTTCTGGGGGAAGAAAAAGGGGGGTTTCTTGCCCTTGCTTGAAA
AGCCTTANAAATNNGGGGAAGCCTCCAAATNGCCNTTNGGGGGNGNAAAAAGGGGNNCCC
TNTNAATTTTTTNNAAAAAATAAATTTGGGTTCCAAAAAANAACCCCCCTTTNGAAAGG
GANCAAANGGGGGGGGGGGCCCCCTNCCCCNAAGGCNAAGGGGGGGGGGCCNNTTNGGGG
GGGCCNCTGGGGGGNNNGNCCCCAAAAACCCCCCTAAACAAAANNTNGGGGGCTGGGC
CCNTAANGAGGAGGGCCCCNCCAGAGCCCAAAANTTNGGGGTTTNNACCCCANNNAAAT
TTTGGGGGGGTNTTTTTTTTACCCCNNTTNNNGNCCCCNCCCCCTTGGGGGGGAAAA
AAAACCCCTTAAAAACCCCNNTTNTTNAAAACCCCCCGGGGGGGGG

Sequence 1454

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGTACTTTNTTTTTTTT
TTTTTTTTTTATACCAGATTTTAAGGAAAGACTGCTTGCTTCTGANAAAGAATTCTCGG
AGTTGATTCTCTGCTCCATTTGCTCCTTTCTCAACCTCTTATGCTCCTGTTCTCTGCAGT
AAGAAGCTAGTGACAACTGGAATTTAGCTCCAGNGGGCTTTCTTCCGGGTGGNGCCCTGG
ACAGGCTGCTCCTGCTGCTAAGGCTTCTGGAGCTGTTATTGAAGATGTCAGCTTCTGCCA
CTGNGGTCTGCTTTTTGGAGTCTGCATTGGTTTTGCCTCGATCTCTATCATTCTTCTCAT
TATTTTCATGAATGAA

Sequence 1455

CGAGGTACTGACCTCGTNTGTCCCTTCCCTNCAACCGNTCCCCACAGCTTTGCACCCCTT

TABLE 1
239/467

TCCTCCCCATACANACACNNNCCATTTTATTNTTTGGGCCATTACCCCATACCCCTTATT
GCTGCCAAAACCACATTGGGGGCTTGGGGGGGGGCCAAGGGGCCTTGGGCATGGGACCAA
GGACCACCTCCCCCTACCCATATCCCTCCCCGTGTTGTGGGGTTTNGGGGAAAAAAACCT
TTTTGGTTTTTTTTGGGGGGGGTCTTTTTTTTCTCGGAAATTAANAAAAAAAGGATT
NCTTACCTACAAGAGAAANAAAGAAAAAAGGGGTACCCTTGGCCCCGGGGGCCGGGGCC
CGGCTTTCTTAAGGAACCTAAGGTGGGGAATTCCCCCCCCGGGGGCCTTGCCAAGGGAAA
TTCCGNATTATTCNAAAGGCCTTTAATCCGGAATNACCCCGGTNCGNACCCTTCGGAGG
GGGGGGGGGGCCCCCGGGGTAACCCCAAGCTTTTTTGTTTCCCC

Sequence 1456

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGATAAGACCC
TGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAG
AAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGA
ATTTACCATCACCAACCTACCATATTCCCGGGACAAAGCCAGCCAGGCACCACCAATT
ACCAGAGGAACAAAGGAATATTGAGGATGCGCTCAACCAACTCTCCGAAACAGCAGCA
TCAAGAGTTATTTTTCTGACTGTCAAGTTTCAACATTGAGGTCTGTCCCCAACAGGCACC
ACACCGGGGTGGACTCCCTGTGTAACCTCTCGCCACTGGCTCGGAGAGTAGACAGAGTTG
CCATCTATGAGGAATTTCTGCGGATGACCCGGAATGGGTACCTGCCCGGGCCGGCCGCTT
CGGCTTTAGAACTAGTN

Sequence 1457

GGAGCTCCCCGCGGTGGCGGGCCGCCCGGGCAGGTACAAGTCCAAATTTTAAGGAAAATGA
GTCCCGCAATGAGTTTCTCATGCTTCGCCTGTGCGTGGACCGGNACAGCTTCTGGGTGTG
ACTGGAGCAGGGCTTGTCTCCTTCTTCAGAATCACTTTGCAGGGGTTGGCAAAGCCGCTC
CCATCCACGTA CTCTGGACACAATAATTTGGCCTATTGCCATCAAATGCCATTTTC
CACTGCTGGAAGCAATGTCAAAAAAGGGCTGGCCCCAAAAAAGACCCAGAGCTGTCAATA
CAACTGGAGACAGATGCAACTGAATAAACCTGTTTTACCCAATTGCACTATTTGGTC
CT

Sequence 1458

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCCCGGCAGGTACTGGAACAGGGATAA
GTTCTTGGATAAGGNGCCAACATACCTATAAAAGCTGATTTTTGAGTAAATTATTGATTC
TAACATATGTAATGGATTGGTGTGATAATTTCTGATCTTTAACTATAAGTGACTTTTT
ATTCTCCACCAGAAAAGATAAATGACTGAGAATGTAAGTCTGCGCTCTGATTAACACAAT
GGAGAAACGGAAAACTATCTCTGTTAAAACTGATTCCTGTCACTTCTTGATATCAAA
TAAGAGGAAGGAAAATAAATTTTTGTGTGTAGATAGAAAAACATACCTGAGGCCAGGTG
CAGTGGATCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGGCGGGCAGATCAGCTGAG
GTCAGGAGTTCGAGACCAGCCTGGCCAACATGGNGAAATCACGTCTCTACTAAAAATACA
A

Sequence 1459

NGGGCGAATTGGAGCTCCACCCGCGGTGGCGGGCCGCCCGGGCAGGTACGCGGGGGCACTC
AGGGAGCTCAGATTTTGAGACAGTAGCTGGCCGATGCTCCAGCTGAATAAAGCCCTTCC
TTCTACAAAAAAGAAAAAGAAAAAGAAAAACAGGATATCTGAAATTAAGACTGCAGGAT
GGAGTAGTTTTCTGAAAAATGACAGGGTCCAAGGTGTGACNCACCGGGACCAAGTGGCTGA
ACTGGAATGAAGTTAAGAAGCCAGTAAGAAAAACATCNCGGATAATATGGTGGATCAGTTC
AACAGNAATGACATTATTTACCCATGGTCCCCAAAGGGAGGGAGATGACTGGAGNATTT
CAAATTCCTCAAGGCAAGCCCTCAATGCCAGCCCAGAGGATTTAANGAGGGGCCTATTG
TTGTTCCCAGAAAGGAGGACTCTGNCGCCAAACCGCCAAGAATGGGATTTCAAGAAATTT
ACTTCAAAATTCCTGTGAGGATTTCTTTAACCCCTGGGTGGGGCTTATACCCAAAACCCCA
AAAAAACTTTTAAGCCAGCCTTCNTACTTTTTGGCTTAATTTTTCTCCCTAAAGCCCCAA
CCCTTGGGCNTTTTTTT

Sequence 1460

ATTGGAGCTCCCCGCGGTGGCGGGCCGCCCGGGCAGGTACTCAGAAATCCTTCCCCGAATT
TACAGCACAGGCAGGATGACCTAAGAGGCAGTTTACTTCCCTGAGACCCACAGTTGGGCT

TABLE 1
240/467

GTTCTGGAAACACATCTGTGAATCATAGCCAATTGCCACAGAGAAAACAGAACCAAGCCT
CCGGTGAGGCCACTCCACCCAGAGAAGTCTGCAGAATCCAAGGACTCGGATTGGATGT
TCAGAATTCAGCAACTGGAAAGTCCTTAAAAACAAACAGGCCAAACCAATCAATATTGC
TGTTTCTAGATGTCCCTTCTGTGGTTGAGCTAGTTTTACAGAGATAAATATATTAAGACA
AGGAGGTGGGGGTGTTATATGATCAATGATAGCCATTTTGAAGAGAGGGAGGAGTACTT
TTTTTTTTTTTTTTTTTCCAAGCACGTGCCACTTTATTGAATGACACTGTAGACAGGT
GTGTGGGTATAAACTGCTGTATCTAGGGGCAGGACCAAGGGGGCAGGG

Sequence 1461

AGGTACGCGGGGCTCAAGAATAAGCTGAAATATGGCCAGACTATCAGGCCCATTTGTCTC
CCCTGCACCGAGGGAACAACCTCGAGCCTTTGAGGGCTTCTCCAANCTACCCACTTTGG
CCCAGTCANACCAAAAAAGGGGAAAGNAGGCCTGGCTTCCCCTTGNCAACAAGGGNATTA
ATTCCAAAAAGNCCTTCTGGTTTTTGGNTGGTNCCTTGAAGGNAAGGGNAGGAAAAA
AAAAGNCCTTGNAACCTTCGGGGAAGGGGAGGGTTCCTTAACAATCAAAAGGAAATTG
GGGGGGGAATAAAAGGAAAAANGGGGCAAGNCCTTGGTTTGAAGGAAGGNAGGTATG
GCTTCAAATTAATGGCCCCCAANGGCTTAATTGAACCAAAAAAGGGTNCAAAAAGGGAA
CAATTCTCAANAAGGGGTGGGGTTCACCCCCCCTTCGGGGTTTTCCCTTTTTGGTT
ACCCCTTGCCCCCGGNNCCGGGCCNGCCTTCCTAAGAAANCNTAGGGTTGGGGNANT
NCCCCCCCCNGGG

Sequence 1462

GCGGGCAGGTACATGGATGGGAGCAGCTTCACCAACCCCTGCAAAGTGACTCTGAAGAAG
ACGACAAGCCCTGCTCCAGTCACACCCGNAAGNCTGACTGNNTNCCACCGCNACAGNCT
GAAAGGCATTGAGGGNAAAACCTCAATTCNTCGGGGNACCTAAATTTTTTCCCCTTTAAA
AANATTTTTTAAGTAACCTTTGGCCAACCAAGGTAAAGGGGGAACTTTTCCAAAACNTNG
AACCCCTTTCCCTCCAAGNATTTGNAAGGAAACNTGTTNTTCCAGGTTAATTAATTAC
CNATTTCCAAAAGGTTCCAACCTTTNGGAANGGGGTTAAGGGGGAACCAANAAAAAATT
TTGGCTTAACCAAGGTTCCCTNAATTAATAATTTTTAAAANGGGGGTTTTTTTTTTTA
TATAAAAAGGGNGNTGGTNTNANNCCCTTTTNGGNGGTCCCCCTTTTTTTTTTTNAA
GAAAAANCCNTAAGGGGNGGGGGAATTCACCCCCCCCCCGGGGNNCCNTTGGGCCAAA
NGGGAATAATTTTCCNGNATTTAATTTCCAAA

Sequence 1463

AGGTACGCGGGGAGGCATTGAGGCAGCCAGCGCAGGGGCTTCTGCTGAGGGGGCAGGCGG
AGCTTGAGGAAACCCGAGATAAGTTTTTTCTCTTTGNAAAGANTCCCNCTTTAAAA
TAACCAAAACCTTACCTTTAAAAAAAATTAATTANGTTCCAAAATTAANGGGNTTTTA
ACCTTNAAGGNAATTAATTTTTNGGCCTTTTAAANNCCGGGTTTTTAAAAGNGTTT
TTTTTTTTTAAAAACCCGTTTAAAAATTTTTTTTTTAAAAATTAAGGCCCTTTTAAA
AGNNAATTTTTTTTTTAAAGGNGANGGAAAAAAAATTTTTTTTTTGGNANAAGTGAAA
ANCTTTTTTTNTTAAAAAATNTAAANNTNTTTAGTCCCTNNTTTTTNTAANAGGNGGG
NAAATGGGNGGGGTNNNANANAAGGAATTTAAAAAANTGGGNTNTTTTTNTTAAAAAAA
AAACCAATTTTATCCCTTGNTNAGGGGTTTTTTGGGNAAGNNAATATGGAAAAANAAN
CCTTTTNTCT

Sequence 1464

TTTGAGAAGCCAGCGCTCACCCACCCGGGGTCTCTGTGCATTGACCTTTGGGTGCTGACT
TGGAGAAAAGCACAAACACGACCAAGTCCCATCCTGGGCTCCCGNNGGCCGNCTTTCTT
CCTAATNCTTACCGCCATTTTGGTATTCCGGACCTGGCCAATTTTAGGTTTNGGGACCTT
AAAAGNAATTGGAATTGGAACCTTCCAAGTTTTTAAAAAAGGGGGAAGGGGAAGNAACC
NAAANATTNNCTTNGAACCTTGGTTCCTTAAAGNCCAAANGGAAATTGGGGCCCCC
AANAGNCCCTTGNNNGCCAAAAAGGNAAAAAAGNNCCNAACCCAACCTTTGGNN
CNAATTTAACCCNAATTTAAGGGGGGAAATTACCAAGGAAAAGGGGGGNCACCAAGG
CCTTTCTTGGGCCCTTGNCGCGGGGGGAATTCCTTNGGCCAAAAACCAATTTTTTA
ACCCANTTTTTTTGGGTTTTTTTTTGGGCCCTTTGGCCCAANAAAACCTTAACCCC
CCCCGGGCGGGTTNACCCCTTTCGGGGGGGCCCNCGCCTTTCCTTAAGGNAAACCTT

TABLE 1

241/467

AAAGGNNTTGGGGGGNAATTTCCCCCCCCCCCCGG

Sequence 1465

AGGTACTTTATTTTTCTTTTTTTTTTTTTGTGGATGGGGACTTGTGAATTTTCTAAA
GGTGCTATTTAACATGGGAGGAGAGCCGTGTGCCGNATCCAGCCCAAGCCCNCCGNTT
CACTTTTTCNCACACNCTTTNTTTTCAACCCTTGGCACCTTCTGGGGCNTTTACTTTAA
AAGNGGNCCCCTTTNTTTGGNCATTACATTAGCAGCGGAAAACANCCCTTTANTTNCCTT
CCCCNTTNTTGGNGAANANAACCTCCCATTTTNTTTTNTTCAAANAAGGAGCATTTGNC
AAANANCTNCCCAAATNTNNCCTTNNACCACNGNGGNCNNTANNCACNNTNCTANCTT
NAGNGNNGCCATTTGGGTTNCNCCCTTTGNNCCNGGAANTTCTNCCCTTTTCCNTTNGN
TTTTNTCCCNCCNGGGNNGTTTTTTTCCAAGNGAAGNGANCCCANAAATCCTTTTTTNNNN
CNCNAANAAAAANGTTNAANCCNAAAAAAGNGCCCAAGAGTTTTTTTTTTTTTCCCC
CCCCC

Sequence 1466

AGGTACACTGAAACATAAATCCGCAAGTCACCACACATACAACACCCGGCAGGAAAAAAC
AAAAACAGCAAGTTTACATGATCCCTGTACAGGCCATGGNNCTNCAANNCTTCAGGAAT
GCCTTNCCNTCNCATTCTGGCCCAAAGNTGGTTGTTTNCNTGGGAATNACCAGGNAGGCC
ACCAATTCGGTGGGGCCTNTCCTGGGGGGNGGTTCAACCAACCTNCAAGNCTTTTAAGGG
CTTGGTTGGGGGTTCCCCACCANGAGGCCACCTTNAATTCTTGGGCTTGGGGGACCTAA
TTGNGGNTGGGGTTGGGNTTGGGACCTTCCTTAACCTTCCAAAAGTAAGNCAANAAGCNT
GTTTAACCCAAGCCAACAATTTNCAAAAAACCAAGGTTGGTAATTTGGNAAACCANTCCT
TTTTTNAAAAATNATTCAAAAAAGTTNGAAGGAAAAANCCANAGGAAANGGGNCAAAC
CATTAAANTTAAATNGGTTTATCCAAGNAAAAAAG

Sequence 1467

CCGGGCAGGTACTTTTTTTTTTTTTTTTATAACTGAAGCTTTATCTGGAGTGGGGGAA
TGGGGGTGTGGTCAGTTGGGGCACCCAAAGACAAGCCATGCCNCCNCCNGGAAANGCC
GCNCAGAGGGTTCCCTTGGGCAATNTGGTATNTACTGGGGTATCCTTCTTNTGCGGTTNC
TTTCGGGNCAATTTTTCCGATNNCCACCTTTNNCCTTACAAAGGGNCCCCAANNNTTGN
CTTTCTCCANCNCCCCAAAAGGTTNNGTGCCCCTTTTNNNCCCCGNAANNNGGAATTGTT
NAAGNCCTTNGNAAGNGGTTATTGGGGAGGACCATTTTCTTTCTTTNCCCCCCCCCA
AGGAAAAAATAATTTCCNGTGTTNAAGNGGTAATGNNAAGTAACCTCCCCCAACCA
AATTGGAAAGGGGNTTAAAGAANTGGNTTTTTNACCTTTTTCTTACCNCCTTTCCNC
CAAANNCCTTTTTCAAAGGGGGGGGCCCTTTTTCTTTCTTTAANCCCAAACCTTT
TTNGGAAATTNGGGGGGGGGGCCCTTGGGAATTTGAAAAAANCCGGNTTNGGCCCGGN
CCTTTGGGTCTTTGGTTTTCCCCAAAAACCCCTTNGGGCCAAACCCCCCT

Sequence 1468

AGGTACGCGGGTGGTGAAAAAGAAGTAGAAATCGTGGCCACCTCCCTCTTGGGGTCGT
CGCCCTCGAGATGATTATCCGTAGGAGGGAGTTCCCTCCACCTCCNCCGCCACAATCTTCC
CAAAGAAAGGGGAGAAAGTCTTTCTTCTTGGCAGNCNCGNGTAGTCNAGNGGTTCCC
CCTTTTTCTTAGGNAGGCATTTAAGGGGNAAGTAAAGGAAGGNAGGAAGNAATTCGG
CCTTGGTTCNTTCGGGGGNAGTAAGNAAAAATTCACCANAGTCCCGGTCCCCGGAATTC
CCTTTCTNTTCTTAAGGGGGTTCCTTCCGGTTAAGGTTCCGNAATTCCTTAAGGGGTTNC
AAAATGGAAAAAGNAAAAATTAAGGAAAGNAACCAAGGTTTTTGGCCAAAGGAAGAAA
AGGTTGGGGTGGTTAACCCTTGGCCCCCGGGGGCNGGGCCCCGGCTTCTTAAGAA
AACCTTAGGGTNGGGAAATCCCCCCCCCGGGGGGCCTTGGC

Sequence 1469

CCGGGCAGGTACTTTTTTTTTTTTTTTTATAACTGAAGCTTTATCTGGAGTGGGGGAA
TGGGGGTGTGGTCAGTTGGGGCACCCAAAGNACAACCTCATGCCTCCTNCCNNGAAAGGN
GGCCCAAGGGTCCCTGGGCCAATTTGGTTTTCTTGGGATTTCTTCTTTTCCGNTACATCG
GGNCAATTTTCCGNTACACCTNCCCTNCAAGGGNCCCNAGGNTTGGCTTTCNCCNCCG
GCAANAGNTNGTNCCTTTTCAACCCGGAATGGAATGGTTAAGACCTTGNAAGNGGATTT
GGGNGGACCTTTTNCATTANCTTACCCCCCAANGTAAAAAATTTCCGGTNTTAAGGG

TABLE 1

242/467

GNAAGAAAAGGAACCCNCCCAACAATTGAAGGNGGTTAAGGTTGGGTATTTTCCTTTTCC
TTTCCCCCTTTCCCAAAGGCCNTTTTTCNAAGGGGGGGGCCTTTTTCCTTTTTCATTAAACC
AACCTTTTTTGNAATTGGGGGGGGGNCCTTGGAATTGGGAAAAAACCGGTTTNCCTCG
CCTTTNTCTTTGNGTTCNCCAAAAACCCCTTGCGCCAAACC

Sequence 1470

AGGTACGCGGGTGGTGAAAAAGAAGTAGAAATCGTGGCCACCTCCCTCTTGGGGTCGT
CGCCCTCGAGATGATTATCCGTAGGAGGGAGTNCCTCCACCTCCNCCNCCNCCNATTCTTC
CCAAAGAAAAGNAGAAAGNCCCTTCTTCTCGGCAAGNCCNGNAGGCCAGGGGNTGC
NCCCTTTTTTCNTAAGGAAGTATTNAGGGGGAGTAAANGTAAGTAAGGAAGGAATCCGG
CCTTGTTTCNTTCGNGGGTAGGAAGGAAAAAATTCACCAAGGCCCGTCCCGGTA
ATNCCCTTTTCTTCTTCTNAGGGGTTNCNTNCGGGTTAGNTTCCGAATTCCTTAAGGGGT
TCAAAATGGAAGGGAAGGAAAAATTAGGGAAGTAACCAGGTTTTTGGCAAGGAAGGAA
AGGTTGGGGGTTGNTAACCCTTGCCCCCGNGGGCGGGGCGCGGCTTCTAAGAAACC
TAGGGTGGGAATCCCCCCCCGNGGGGCTTGCCAAGGGGAANTTTTCCGNAATTAAT
TCCAAAAGG

Sequence 1471

AGGTACAAACGAGTCCTGGCCTTGTCTGTGGAGACGGATTACACCTTCCACTTGCTGAA
AAGGTCAAGGCCTTCTTGGCTGATCCATCTGCCTTTGTGGGCTGCNTGCCCCCTGGTGGG
CTNGCCTGNCCACCCAACCAGGCNTGGCTTCCCTGCCTTGGCCTTGGCCTTGGCAAGGC
TCCCCCAGGCCTTAAAGGGGTTTTGGNAAAGGNCNCCAAAGGGGAAAAAGGAAGGTTCCGG
GAAGGGGAANTTCNNGGAACCGAAGGGNATTAATGGGGGGAATTTTTTGGGGTCTTNC
TTTTTGGACNTAAAAATTCNAACCCCAAAAAAAAAAAGGNCNAAANCCCCCAAAA
ANCCTTTTTTAAGNCCCAAGGTTTTTTTAAATTTTTTGGCCAAAAAAACCAAAAGG
GGGAAAAAANTTAAAAAAGGGGGGCCCTTTAAACCTTTTTTCCAANTTANANTAT
AANAATAAATANNANAANNNNNNTNNGNGGGTTAAACCCCTTTGGGCCCCCGGGG
GGGNCCCGGGGGCCCCCGGNTTCCTTAAAGGAAAAACCCTTAANGGGTNGGGGGGAAA
TTCCCCCCCCCCCCCGGGGGGGGCCCTTGGGCCCAAAGGGGAAAAAA

Sequence 1472

AGGTACAGAGTCTTTTGCTTCTCCACCCCTAGGGGGAAAAACTGCTTTGTGCTTTGGG
AAGTTGTCTCTGAAACCCGGGGACAGAGGACCGCAGGACAGANCTACCGNCGGGGAGNCC
CGNNGNAGGGAATGGGGGCATGCAAGTCATGNTGAGAAGNGGAGNGTGATCTTACAAGCA
NNGGAAGNACGTATGNGGTCCCGNGTAAGNAAGTCCANGTAAGNGNCCCTTGGAAGNAA
AGTCCCAAGTANCGACCAAGTNTTGNAGTAAGTAGGGTGNTGGGNAATAGGTTGNANC
CCATNTCCGGGGGTCTTGGGGGGNCCTTGGGTAAGNCCNCGNCCAACCAACTGCTTCT
CCTNCCCCAATGGTTTAAAAAATTAGGCCACCCCTTTTTTAAGGAAAAAAATTTTTT
CAACCAAAAGGGTTCNCCCAATTCCAACCATANAAAAAANATAGATANACACAN
AAAGGGGAAAAGGTTACCCCTT

Sequence 1473

AGGTACTGGTGTGTCCGGAATCCTACCCACTGTGATGACAGTGCCTGATAGTTTCTTCTG
CCTTTCTATCCCAAAACGATTGGTCAGTTTACCCAAGGTTTGGCAAATGGCCAGCCTTNA
GNAATCTTCCCAGGGGAANCAATNCTTCTTTCTTAGGTTAAGNTTGGCCCCCTTAA
GNCCCAATTCCTTTNGGTTAAGGTTTGGNAATNTTGAACCTNTNTNTNTNTNTNT
NTNTNTTGTGGCCTTTTCCCAGGAAAAAGGCCTTCTAATGNCCTTTCAATTAATGGGG
AACCTTNGGCCANTAAACCCCAAAATTTTTTTTTTNGGGTTTTNCAATTTCTTGGGT
TTTGGGGGTTNCAATGGAATGGGGTTTAAAGGCCAAGAAAGGCCCTTGGANCCCTTCCCC
NTGGGTTTTAACCAAAATTAAGGAAAAATTGGAATTCGGGGTTTTTCCCCTTGGGGG
CCTTAACCAAGGAACCTTTTGAAGGGTCTTNGGTNTTTTTTTTTTTTTGGGTTTTTT
TTTTAAAAAANCCCTNNTNCCNCCCAATNGGGTTGGGGGGCCNAAAAA

Sequence 1474

CGCGGTGGCGGCCCGCCCGGGCAGGTACTTTTTCTTTTTTTTTTTTTTNGGGATGGGGAC
TTGTGAATTTTTCTAAAGGNGCTATTTAACATGGGAGGAGAGCCGTGTTGCCGGCTCCAG

TABLE 1
243/467

CCCAGCCCCGCNTGCTTCACNTTTCACCNCCTTTNTTCTCACCTTGCCTTCTTGGGCT
TTTCTNCAAGGGCCCCCTNNTGGCCTTTCTCCCCGNACCCCTTTGGTTCTTCNCTTCTGG
AAANAACCCNCTTCNCTNCCAACCAACCTNNGCAGNCTCCCATNNCTTTCCCCGGGCT
TCCCCCNTCNCCTTAAGGTTCTTGGTTCCCCCTTGGCCGGTTCNCCTTCTTGGTTCCCCCG
GGGTTTTTCAAGNAGNAACAAAANCNTTNCCTCAAAAANGCCAACAAAAAAGGCCAAGGT
TTTTTTTCCCCCCCCCTTAAAGNNGGNNNTGGGGGGGAAGGGGAAAAGNCCAAAAAAA
GGAACCTTCTTGGTACCCCTTTTNGGGGCCCGGGCTTCTTAAAGAAAACCTAAGGGTG
GGGGAATNCCCCCCCCCG

Sequence 1475

AGGTACTTCAATCCTGAATTAATCTTTAAACACTTTCAAATATGGAGATTAATCACCAAC
TTCTTATTTTTTGGCCAGTTGGATTCAATTTTTTATTTAACCATGGANCTCTTTCNTAT
TATTCGGTTACCTNGTNCGGAAATGGCCTAGGAAAGNAAAGGGCCTTCTTTTNCNGGAG
GGGTTNCGGGGAACCAAGNCNAGGAACCTTTTGGTNAATTTTTTAATTGGTTTCCCTT
TTTTTGGNTGGGGAATTTCTTTAAATNGAACCCCGAGTTCGGGAACAAGGGAATTG
NAGGCCCAAAGGGTTCAAAAAGGGGAAAACNTTTTTNTNAAACCCCCCAAGGGTATT
GGCAAGTTTGGGACCACCATTAAATTAATTTTTTTTTCTTTGGGAAAAGGGAATGTT
TAATTTTTTCCCCCAAATTCAAAANCCCTGGGGTGGGGAATTAAGGGAAAATTT
TCNTGGAAAAAACCAACCAATTCTAATTTTTTGGAAAAAGGCCTTAATTTTTTTTT
TGGAATAACCAACCC

Sequence 1476

AGGTACAAAATTTTATTAAAGGTCTTTAGAGAGCAACATCCAGACTCCAGAATACAGCTG
NGNAGGAGACCCTGTTATGCTGTGGGACTGGGCTGGGGCATTGGAAGAGCNCCTCCNTC
TGGGCCCTCCCAACNCCCTTTANTTGTCTTGNAAAGAAATGGGNGGGGNTTGNNTGGG
NGNCNATGATNATTANCTTTCAATTTCTTTTAGGGGGGATTTNACCAACCAAAAATTG
NCCTTTCNAAACCGGTTGNGGNNTTCCATGTGNCCAAGGGNNGGNGGCCTTTCTTTTTA
NGGGGGNCCCCCAAANTTCNTTTNAAACCCCAANTANTTTGNTTTTCCGGNNAANGT
CCCGGTGTTTNTACCCGGAATTCCTCCGNGGGGNANCAANGNGNNTTNCCTTGG
TTGNGTATTNCCCCAACTAATTTAAAAAATAAAC

Sequence 1477

CGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGGATGAAATGCCAGGGTGA
AAGGGATAGCCAAATAGGCTAAAGCACAAAGTGCCACTCTAGGTTAATTTCCGCAGGACNN
GCCCCAAATAAAAGGGTCCCACCNGACCANNTTACCCAATNCAACAACCATTTCCCGGNT
TTCGGGG

Sequence 1478

AGGTACCTTAACTTGAGTTACAGGGCTGGTCCCTCTCTTTTCATTTTTATCCCAGTAGG
TGAGACCGTCCCTGCTGTGTTGGTGGCTGTGGAGTTGATGGCATCTTGCTCCAGGTGA
CACCTGCATGCTGGCCAGCTGAGCGGCATAGAGCTGCTGCAAAACAGGGAAGACAAACAT
TGATCTCTTTAAATGCAGCTGAAATTGAGTTTCAAAAGAAAAAACTTACCATATTGTTAG
ATTTCTCAGACAGCCTTGTAATTTCTTTTCACTATTTTAAAAAAGGGAGCTAAGAGAA
GGCAAATAATAAAACAGAAAAGAAAAGGACAGGTATGGGAGCCATAGTTCTGTTTCTGGT
CCTTCTAGCAACAACCTTATGATCCTGGACAAAGGATTTGATCTCTTAGAATTCAGTT
TTTTTTTTTA

Sequence 1479

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAACACCTGCTAAAGACATAGC
TTAATAAATATTTGTTGAATGTTGTTGAATGAAGAGCATTTTCTGCTCATAAATTTCTC
ATTACTTAACGAATGTAGAATAAATTCCTTACTCTGGCAGACTGGAATATGTAGTTACAG
TTTATTCTAGAAATTTTGCATTCCCCCTTCTTCTGGTTCACCTGGAGAAGTTCTTTCCAT
CCTAAGTGACCCAGGTGAGTCCAGTGTCTGCTGATTTCACCTGCAGGGCAGGCTGTGAT
CCAGGCTGGCCACAGTGGTCAGTGTGGACAACCTGACCCCTGTTTCATCTGTGGAGTCTAAC
AAAAGTAGTGCCCCCTTATCCTCGGTGGTTATGTTCCAAGATGCCCAAGTGGATGCCTGA
AACCGTGGATAGTACCTGCCCGGGCGGNCNGNTCTAAACTAAGTG

TABLE 1

244/467

Sequence 1480

CCGCGGTGGCGGCCGAGGTACTTAGCATTGATCAAAGAAATTTCAAATTACCGATCAATT
GGGTGGGGAGAGGAATTTTCATTGTCCAAGCACCCCTCAGGGAACAGAAGTCAAAGCAATA
ACATATTCAGCAATGCAGGTCTATAATGAAGAGAACCCGGAAGTTTTGTGATCATTGAC
ATTTAAGACACCAAAAAATAAAAGACTCCTACGAAGAACTGTTTTGTTTTCTCTTCCT
TTTGAGAAGACACTATGAATTAATTTCTACAGCTTTTTTTTGATATATGGAAATTTGTAG
AACAGAAATATTTTAGTTAAAGTGTGACTTTTCAGAAAGGAAAAATCAGGGCACAGCCTTG
GTCTGTGTTCCCAAAATATTCACACTTTAAAGAATTCTTAAC

Sequence 1481

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGATTGTCCTTTATGCATTAAATTCAT
GCTTTTACATACTTGTTTCTTTTCATTCGTCCTTCCAAATCATTATTTTAGGAATA
TAGAGAAAAGGGTTGGCCAGGTGCAGTGACTCACACCTGCAATCCCAGCACTTTGGGAGG
TCGAGGTGGGTGGATCACTTGAGGCTAGGATTTTGAGACCAGCCTGACCAACATGGAGAA
ACCCCATCTCTACTGAAAATACAAAATTACCCGGGTGTGGTGGCGCATGCCTGTAACTC
AGCTACTCGGGAGGCTGAGGCAAAAGAATTGCTTGAATCTGGGAGGCGGAGGTTGTGGTG
AGCCAAGATCGTGCCATTGCACTCCAGCCTGGGCAACAAGAGCGAAACTCCGTCTCAAAA
AAATTAATAATAAGGCTTATGTGCAGTTATTCTCAATGAGCTAAAAAGCTTCCTGAGG
CTAGAAATCTTGTCATTTTTGGCTGGGA

Sequence 1482

CCGCGGTGGCGGCCGCCGGGCAGGTACTATCTATTTGGCCTTGGAAGTTACTCTCTAAG
TCAGGGCTTCTTTTCTTNAACTTTGGTGTGAGACTCCGCTGGAGAGCCGGTTAGAAAAAC
ACAAGTCTCGGGCCCCACCCCGCAGAGCCCTCATTCTCTAGTTCTGGGTGGGGCCCAG
GAGTCTGCTTTTCTAGCAAGCGCCAGATGTCACTGATGCTTACAGCTCTCANACCACAG
TTGGAGCAGNGATTTTTAAAGTCTTTTCATTTGTAAAGAGTNGTTCTCCATGCTCCAAA
TGACTGNGACGACTGAGAAAATGCATGTATGTAAAGTCTGCANCTGGTGACATTGTACAC
ACTNAGCAAAATGGCCTTNGGTGTTACTGTNANTTTATTTTACTAATTATTTNTNNCACC
NACAAATTNGGANCTGCTNCAATCGGTNGGAATTTGGAAATTGGGC

Sequence 1483

GCTGCCATCAGCTCCCTAGGAGCTCTCCCTCCAGGAAGGGAATGTGTCCACCGTCAGACA
CTCAGACCCAGCATGTGGGGACAGAGGCTGATGGCCTGTCTGGCCATTCTCTCAGTTCC
TCTCCTCACTAGCTTGTGTCCTTGTGCAAGTCACTTACCCTCTCTGAGGTTCAAGTCCCT
CCTCTTTGAAGTGGGTTTAATAATAAGTACCTGCCG

Sequence 1484

CCGCGGTGGCGGCCGCCGGGCAGGTACTGCCCTTTCGTTAGAAGGCAGTGACTCCTTTT
TGTGAAGCCGATTTAGTGAAGTGTCTGTGCAGAAAAGAGTCCAGGGCTGTCAGTTAATT
TCTTCGGCCACTGGAGTTAGGGTTTGAACTCTGCAGCTGCCTATTGCACTTGTGAAA
GGTTTGTATGTTCACTGCTGGCTGGCTCAGAGTTGGGAGTGAATCCTCCAAGGGATA
AGCTTGGAGAACCTTTCTGAACAGTCAATCTGTAAAGGTGTCTGCAATCCCAAGGCCAATG
GACTAGATTCTGAAGGCTCTCGGTGGACCCACTGTTCTCTCTGTTTATTAAGCTTTTTG
AAGGAGAGAGATGAGGGCAGGACATGTGACAACGGTGCTTTTCTTATGCTTATATCGCT
CTCCAACAGCATCCTT

Sequence 1485

AGGTACATGCAAGTTGCATGATTATAATGACGTGATCCTGGGATTTAAGTTGATTATGAC
AGGAACAGAAGGAACTTGGAGATTAGGGACAATGAAAAGGTGGTAGTGAAAGGAGTGTTG
GAGTTAAGTTACTAGATGTCTGGAAGACAGACTGTGGTGGTCAGATAATGAGATAGATTA
TGGAGGGGTTACAGTTTTTGGTAATAACGAGAGAGATCTAAGGTATGACTGAGAGTGAAT
GGATGAGAATAGCAGAGAACAAGGTCAGTGGAAGAACTACTCTTCAAAGAACCTATAGTCA
GGGTGTTGAAAGATTAAAAATTGCTAAGAATTAATCAGGAAGTAGTGCTGCGGGAAATG
AAATGAGCAGTGAACCTAACTTACTGAGAAATGAGAGGGGATGACCCAAGGGTTGTAGA
TTTTGTAGATGATAGCA

Sequence 1486

TABLE 1
245/467

AGGTACATGACATCCGACGAAATGAGACGCCACCTAATTGATTTCCGGGAGTCCGCACCA
GGGGCCCTCAGGGAAGAGACCCCGCAAAGATCCTGGGAGACCAAGGTGGGGACCCTGGTG
AGAAGAGAGAGTTTCAGGGGAGTCTCTCTTCATTGCCCTTCTGCTAACCCAAGCATTAAATT
TGCTAAGTATTTACCAGGGGAGTGGGAAAAAGAGTTGAGCGGGATTCTCTTAGGCTATGA
GAGAGTCAGGCAGCCCCCAAGATAAAATAATGAACTAGAAAATCTGGAACCTTACTTCTC
TGGGAATNTTACCTATCTGGCACCGTGGGAAGAAAGAAAAAAGGCTACTGAGTACCTGCC
CG

Sequence 1487

GCGGTGGCGGCCGAGGTAAGTACTGACCTCTGCCAGTCAGCTGCGTAACTCCAGGCCCTAGGGT
GCCCGCTCTGTCCAGCCAGGGATTGCATGGATATGCTGTGATCTCCCTTTTGGTTCTGAT
TGAGTTGGACCTTGTGGGAGGAGAAACATAGATGTTGATACATGAACACATATGTTGGAG
AGAGAAAGTTTTATCTTGGCATAGGACTTTTAAACACAAGGTAATTTTTAATCAGTTTT
GGGACCAAAAAAAGTCAATATGGGAAAAATCCAAATTTCTGCCAAAATGTCTAAAGAGGT
TTATTCTGAACCAAGTATAAGTGAAGTGTGGTCTAGGTTACACAATTTCAAGAGATCCTGAT
AAAGCGTGCATGAGAGAGTTGGGCTACAGCTTGGTTTTACACATTTTCAAGGAGACAGGAA
TTGTANGGTAAAATTATGGCACAGGACTTTTAAATGAAGCTGTGAAAGTTTACAGTCCA
TAGAGAATAAAAAATCTAGAAGTTT

Sequence 1488

CCGCGGTGGCGGCCGAGGTAAGTACTGACACGACATATGGTAAATGAATAAGACAAAGGCTCT
GATGGCTTCTCAGACCCCTGTGGATCAAACCTCAGATTCTTTTCTAGAACCCCAAGGCCCT
GTCAGTCTCACTAGCCTCTCTCCAGACACACCAGCCTTTTTCTACCTTTCCAACATCCCA
AGTTCCTTTTCTCTTACAGGACTACATACACTCTCTCTTCTGCCAGAAACCATGTTCTAC
CAGCTAATTTCCACTCAACTTTTAAAGTCTCANCTGAAATGTTACTTCCAAAGAGAGGCCT
CCACTGAACCCCAAGCCTGGGGTTTACAGCACCTGTCTCCATAACTACATAATAATCTCT
CTGATGTTTAGGCTGGGCATGGTGGCTCACGCCTGTAATGCCAGCACTTTGGGAGGCCAA
GGCG

Sequence 1489

GGGCGAATTGGAGCTCCCCGNGGTGGCGGCCGGCAGGTACCCAGAGTTGCGAGGAGTTT
TTAACTGATTTAGCCAGGTGGCAANCATNAGTGAAATGGATGAAGAAAGGCCCTTAGAA
TGGCAAGATTACATTTACAAAGAGGTCCGAGTGACAGCCAGTGAGAAGAATGAGTATAAA
GGATGGGTTTTAACTACAGACCCAGTCTCTGCCAATATTGTCCTTGTGAACCTTCTTGAA
GATGGCAGCATGTCTGTGACCGGAATTATGGGACATGCTGTGCAGACTGTTGAACTATG
A

Sequence 1490

GATNAGCTCGATATNGAATNNCNCNNCANNNGGGGANNNCANNNGNACAAGAGCGGANNCC
NNCGCAGAGGAGCTNCAANTTTACACACTGTTTAAATGAGGGAATANGCNGCAGCGCTTG
GATGTAAGTGAAGAAGACAGTNNAGCNCNCAAGGAGGGACAACCACGACCTATGAGGACA
CCATGCCAGAGAGGCCTGGACCCACGCTAGGCTCAGTGCCTGTTATACTCTTGGGACCC
AGCGCTTCTCTTCTCCATCACGTGGCATACTTGGCATTATTTGTTGNTTAAAATATTGCC
CTTAGTTTTNACCTTTCNTAAGGAGACACAAGGNNGACCTTTGNGACATTAACAGTTGCC
CCAAGTNGGGGGNANANANAANAATTTTTGGGGGNGNAAAAANCCTTTTGGCTTTTTNAAA
AAATTTTTTTTTNAAANTTT

Sequence 1491

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGTGACCCTTGCTGGT
GCTTTCATGTTTTGTGCCGAGGCAATTAGACTTTGTGCTGAATNTGTTTGTGCTGCCACC
TCAGGGAAGGGGTGGAATGTGCAGCGTGGTTTTCCATTTGACATTGTTTTCCCTGAGAGAT
GGGAGGGCTGAACGTTACCTCTTGACAAGTCTTAGTGGACAGAGGGGGCCCGGATACCCAA
GCGCCTTAGTTCTTAGGGCTGGGTATTAGTTCAATTTTACACTGCTGATAAAGACATACT
CGATACTGGGAAGAAAAAGAGTTTAAATTGGACTCCACATGGCT

Sequence 1492

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTACCCTTTACTTTTTCCC

TABLE 1
246/467

CAAGACCATCTCAGGGTGGAGCATTCTGTCTAAGAGAAGAAAGATAAGGAGGCTCCCACC
CACCTCTCCCAAGAGCAGACATTAAACATCTTTGTGCTTTGAAGAGAGTGAATTTTGGAT
AGTCTTGTGATTCTCAGACTAACTTCCAGAATTATACTTTAACCCTTCCAGATATGGTC
CGCCTTTGGCATTGTGTGTACCTGTGATGGGGCGTGTGGTTTCCGGTTGTCTCACCTTTA
ATTGTCAACCTCCAGTGTGACTCTAGAAATATGAGGAAAGCTTTTCAGTTTTTAAAATT
GCCATTTAAATTTAGTCTATTAATAAACAAACCTAGAGGTCTTGGTGCAGTTGATTTTCA
GTTTATTAATTTAAGTGGTCCCAAAAGTATTACATCTTTTATATTCTGGAAGAAAAGAAC
TGTGAACAAATTAGA

Sequence 1493

CTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCANGGTACTGTGGAGGT
CCCAGGAGTGTGCTGGTGTGGGCACAAAGTTCCGATGGGTGAAACCATTGACATAGAGACT
GCCTCTGTCCAGGAGGNANGGGCCAGCTCGATGATGCCATGGGTGAGTTTGTCTCAGCTC
CCAGTATAGCTGCTCTCTGTCCAGTCCAGGGTTTAGAGGGTCAAGGCGGTGAGTGCAGAT
GGTGTCCACGCCGGTGGCTGNCCACGTTTTTCAGGCCTGAGCAAGGTCAGTNTGCAGCC
AGAGTACCTT

Sequence 1494

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAATTTGAATTTGTAATGA
GTCTGATGGTATATTTCAATTTTTGCTTTGAGGGACTGGCTGCTACATTGCAGAATATC
TTATATCCCTGACTGCTTTCCACTAAATGTCAGTGGTGACCCCAATCCAATTATTATGAC
AACTGAACATGCTTATGCATCCCTCATGCCTTTATTTTTATTTTGGGAAATCTTTCAGC
TTCAGTTTTTGTCTGATTTTATGTGATTCTTTGTTCTGCAATTCAAATTTCTGGGAGCCA
AACAGTCTCCTTGGTTCAGATTACTGTTTTTGAAGTCTCTCGCTTCAGATTCTGT
CATAAGATTATGGCTTAACCTATGGTTGTCTTTGATTTGGTGCCATATGAAATAAAACA
TTATTT

Sequence 1495

GAGTCCCCGCGGTGGCGGCCGCCCGGGCAAGGTACGCGGGGAGTTTCACGCGCGTATGC
TTTGCCCGCATGGCCGCAAGGNGCCTTTGGAGTTCCATGCCAAGCGGTCTTGGCG
CCCCGAGGAGGCAGTAGAAGATCCGGACGAGGAGGATGAGGATAATACTAGTGAAGCCGA
GAATGGGTTCTCCCTGGAGGAAAGTGTTACGGCTCGGAGGCACCAAGCAAGGATACCTTA
TGCTGGCTACTTTGGATGAGAATGAGGGAAGTGATAGATGGAGGGCAAAAAAAGGAGCAA
TCCGATTGACCTTTNACCAAGGGGGGANTTTTGAAGCTTTTTTTTTTAAAAATTTTTNTT
TTTNGGNGAAATTTTTNAAAACTTTTTTTNTTTNAAANNANATTACCCCCCTTTTAA
AAAAAAAATTTNCCCCCAAAAAAANGGGGNAANANCCCCCAAAAAAANAAN
ATTAAAAAAACCCCCCAANGNTTCAAGGGGCCCTTTTTTTTTTTTNGGGGNAAAAAA
AAAAAATTNGGCCCCCNCCNCTTTTTTTGGGAGGAGAGGGGGGNCCCCCNCCCCCTTTA
AAAAAAAAGGGCCCCCCCCGGGGGGGGGGGNANTTTTANAAANTTTTTTTTCCCCC
CCCC

Sequence 1496

CGGGCAGGACCATGGGAAATAAGAGCNGGCTNNNGGCATTCTGNGTANGGAGCCTGAGCC
AAACTCTAAAGCTGTCTTTATAAAGGGAGGTCATGTGATGGCCAGAAATTGCCTTTGCTT
CATGGTGCATTTGGTGGGGAGTCAGGTGTGGGGTGTGGGTTTACATCATCCCATTTTC
TTTTNNGNNTTCAGACCTGCAATGCTTCTTTTGAACCCGAGACCGTCTGCGCTCCCACC
TGGCCTGTGATGAAGACAAGGTGCCCTGCCAGGTGTGTGGGAAGTACCT

Sequence 1497

AGGTACTTTTTNGAAGTAAGTGGACATGNNGGAGGNNAGGGGAANGGAAGTATTGNTATGG
ACTGAACTGTGCCCCAAAATTCATATGTNGAAGCCNTGAGCTCTGACATGATTGNATNT
GAAGTCCTAAAGCCAGGAATGAGGAAGGCTGTGAATGTNCATTGTTCCATGCAAGAATGA
CTCTGGNGNGGGCTATTTAGAGATCATGAGGGATACTGCCCCAGTTTCCACAGGCCAGAT
GGNCTCCAACAAAAGCCACGGGGAGTCACCCCTGCCTGGCAGATCTATCGGGTCAGGAC
CACCGCCAGGGGGTCTTGGAGAGGACAGTATAGGACCAAAGAGGAT

Sequence 1498

TABLE 1
247/467

CACCGNGGTGGCGCCCGAGGTACTTGGCCAAGCGCTCAGATCGGCAAGGGGCACCAAGTC
TTGATCTGCCAGTGCACAGNCCCAACAACCAGGTCAGCGATGAAGGTATCTTCAGTCTCC
CCCGAACGATGAGACACCATGACGCCCCAACCATTTGGCCTGGGCCAGCTTGCACGCCTGA
AGAGACTCGGTCACCGGAGCCATTCTGGNTTGACTTTTTAGCAAGAAGGNANTTNAAGGA
NTTTTTTTTANCGNCTTNGGNAATCCTTTTGGGGGTGGGGCNCNTGGGNGAAAACTCC
CCCCANCCNTNGNGATTCTTNCNNGNGGGNNGAAAAATTTTTGGNNAAAANTNNCCC
ATAANNTTTTTNGTGAANAANGGANTTTTTNANAAAANCCCCCTGGGGTNTNTNTTTN
NNNAAAAANATTTTTNTCTTCNCNGGGGGGNCNNTTTATAAAAAAANGANNANACC
CCCCNCCGTGGNGGAGAAAAATNTTTANATTATTTTTTTCNTCCCCCCCCGGGCCT
TGGGGGGGGGGCCCCCANCCCTTTTTTTTTTTTTT

Sequence 1499

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACAGTTAA
TTTGTGTCATCCCATCAGCAATGAAGGTCCCTATCCAGGGTCCTGCTTGGAGCAGCATT
CATGTTCTTTGCTGTTTTGTGCTTTGCCGATTTTGGATTTTATTTTTACAAAAATTTT
ATTTAAAAAACTCGTCACCTTTTGGAAATGCCATTGCCGACTTGAATTTTTTGTATGA
AGTCCCTCCTGATTTTGTGTGTGTGTGTCTGTGTTAAGCAAGCGTTCGGTTGGTATAGN
TTTTTTTTGTTTTTTAATTTAAATTGAAGGTAGCTGCCTCCTGAAAGCCAGCATTAAAGC
CAGAACACCCAGNTTCAAGCAAAGACCCACCTCTCTGCAGAGGCAAAGTCTACTTTCTG
GTACCT

Sequence 1500

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTAGTAGAGACGGGGTT
TCACCATGTTTGCCAGGCTGGTCTCGAACCCTGGCCTCAAGTGATCCACCCGCCGCGAGA
CTCCAGAGTGCTGGGATTTAGGTGTGAGCCACTATGCCCGGCCTAATACGTGGATTTT
TAAAGCTTCAGGTTCTGGTTCAGAAAGTTTCTGGGTCTCATTAAAAAATGAGGCACTCA
GAATTGGTCTAATAAAAAATAACGACCATTTCTTTCTACTTCAGCTNTTTCACAACTTTT
TTAATGAAAATGACAAGNGAGGNCCTTCAGTAGGGGCATTTTCAGGGGANAAAAATAGCG
GGNAGACCTGAAACCTGGGNTAGGNAGTTTTNTTTTTATTTTTTGAACAAGAAGANNAATT
TTTTCANAGACCCTAAAAAATTNTTTTCCCAAAAACAAAAGNGNTTNTTTTTNTTTNG
GGNNGGACCCCTTCTTTTGGGNNTTTTNCCTTCCCCCT

Sequence 1501

CACTACTATAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGCGCCGGGCAGGTACGCGG
GGGCCACTGACCACAGCTCTTTCTTCAGGGACAGACATGGCTCAGCGGATGACAACACAG
CTGCTGCTCCTTCTAGTGTGGGTGGCTGTAGTAGGGGAGGCTCAGACAAGGATTGCATGG
GCCAGGACTGAGCTTNTNAATGTNTGCATGACCCCAAGCCCCACANGGAAAACCCCGCC
CCCGNGGACAATTTGTTTTNACCANGTTTCCCCNTTGGNNNNAAAAAATTCCTTTTTTT
TTTNCNNCCCCCCCCNCGGNGNNCCNAAGGGGNNTTTTCCCCNNTTTTTNTANTNNNC
CCCCCCCCCCCCGGGGGNGGGGNGGNCNCCCNCTTTTTNNNAANNANTTTTTTTTTNT
TNAAAAANCCNCCNNTTTTTTANAANGGGGNTCCCCNNAATNTNGGGGCCNTTATCC
CCNGGGGGNTAAAAANAANTNTTNNCCAAAAGGGGGGNNCCCCCTCCCCCTTTTTNAAAA
NAGGGGGCCCCCCCCGNGGGGGGNGNGAANTNATAAAANTTTTTTTCNCCCCC

Sequence 1502

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACATTCCAGCG
CAGTCTGGGCCCAAGCAGTTTCACCTTACCTAACTTACCTAACTCTTAATATAGCCT
AAACTCACTGAAAAATAAGCTAACTTCATTTACCTTTNGTAGCATAACGTAGACTCAG
AGTNTATACTGAAATATAATGGGAGGCTGTTATNAAAAAAACCNNCCCTCNAAAAAA
AAAATNTNNCNCNCTNAAAAAAAAAAAAAAAAAAAAAAAAANNNGGGGGGGGGGGGGG
GGTTTTTTTTNATNNTAAAAAATAATNNGGGGGGGGGGGGGGGGGGGGGGGGGTTTTTTN
TNNTNTNTTCCCCTNNANTCCGGGGGGGGGGGGGGGGGGGGGGGGTNGTNGGTTTCTTNTATT
NTCTNTNNCTANNNCACNCTCCNANACCCGNNNNGANNNNNAANATNNNTTNAATTAT
NNNNATTTNNAAAAAGNGGGGGGGGGGGGGGGGGGGGGGGGGTNTCTTCNNTTNNANTAT
AANTANNATAGTNTCTNNNGNANNNTTNTNTNNNNANATNTNGGNNTNCNCNCNTNCNTN

TABLE 1
248/467

CNTCTTNTTTATAAANAANAAAAA

Sequence 1503

CCCTCGCGGTGGCGGGCGAGGTGCATCACCCTGCTGAGGGACATCCAGGACAAGGTCACC
ACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTG
ACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCCAGC
CTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCC
ACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACA
AGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCC
CAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATATTGAGGAT
GCGCTCAACCAACTCTTCGAAACAGC

Sequence 1504

CCGGGCAGGTACTCTTGACAAAGCCTCCCCAACAAGGTGAAATCACTCTCGGCTCACCAC
TGGTGGCAGAAATACTCTGGGCCTGTCTGTTCTGAATGGTCAGTTTCACTGTAATCCTCA
GGCCCTTCCAGTCACCCGTTGCCTTGGCAATGTCATCACCAACTTTTTTTGGAGACAGAC
CCAGGGGGCCCGATCTTGGGGGCCAGGGCAGAAAGTTGGCACCGACTTTNCCTTCCGGGNN
CCCCAAGGTTAAANACTTTTTNTTTTTTTGGGGGNNNAAAANTTTTCGGGCNNTTGGGGG
GGGGCCCTTTNTTTTTTAAANNAACCCCCNNTTTTTNGGGAAAAACCCNAAAGAAAAGTN
CCCCCTTGGGCCCCCCCCCCNCCCAAAGGCCGNNAAAAACCCCGGTTTTTTNGNGNTT
TTTTAAAAAAAAGGAAANCCCCCGCNCNCGGAAAAANTTTNTNANAANTTTTTTCCCC
CCCCCCCCNCGGGGGGGGGGCCCGGCCNNTTTTTTTTTTTTTTTTTT

Sequence 1505

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGGTGGTAA
ATGCTTAACTCCACCTATATAAAAATCAAAAACAGGCAAAATGAATCATCAGACTACAGC
TTACCTTTAGGGGGTGTGAGTAGTGACTAACAGGGGTCAAGATGAAGGTTAAGGATGTC
GCCAGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCAGGCGGAT
CACTGAGGTGAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCTGTCTCTACTAA
AAATACAAAAAATTAGCCGGGCGTGGNGGTAGGCGTCTGTNGTCCCAGCTACTCGGGAGG
CTGAGGCAGGAGAATGACGTGAACCCAGNAGGTGGAACCTGCAGTGAGCCGA

Sequence 1506

CCGCGGTGGCGGCCGCCCGGGCAGGTACCATTTCTGCATTTATTTTAGCCCATGGAATAA
CTGTGCTGAGAAACCACAGAGTCAATCAGATTCAAAATGTTAAATCCTTCCTGCTTGA
GTTTTCCGTCTTCACATCAAAGCATTTTCATGCCCGTCAGCAACTTTTAAATGCATTTGCT
CCTCGTTTGACAATTTCCATTTAAGACTTTCTTGGCTGACTTCTCTGATGAGGTTTC
CTGCTTGCCAGGAGAGCACGCTAATGCAGAAATTACAAAGGGGGCTTCACGTCCCTTTTC
CGGAGGACCTGATATTTAGATAATTTCCAGCTTCAGTTTTGGAGAAACGACTGTTCTTT
GCACCAGGGGAAAATAAACTGATTTTCAGTGTAAGCAACCTTTCTGCAAGTAGAATGGGG
ACTGTTGGGAATGGAGATGAAGACTTCACTTCATGTTATTCAATTCCTTAC

Sequence 1507

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
GTTAGGTAAACAGAAACAATGGGGTTATTTCCGGTAGTGGCAACAGCACGAACTAGTTTT
CTTGTGGAATAATGGCCCGAGAGTTCCTGCGATTTGTGGATTATTTCCCTTAGATGCAAT
CGACCATTTGTTCCAATAAGAATTAATGCTACCACGGGGCTTACAAAGAACCCTCAAG
TCTTCCAAATCTGCCCATGACATCAACCTNTGCTGCGTAATCGGACCTGCACCCAACCCA
GGTTT

Sequence 1508

CCGCGGTGGCGGCCGAGGTACGCGGGAGAACAGCTCAGAAGGAGACCCACAGTGAGCAGC
TCCCCTGTGTCGGCGGGCAGGTCGTCCCTCAAGTGTTCACTCTCAGCAGAGAAAAGGCC
CTGGAGAGGGTGACTCCTCTCAGCTCTCAGCAGAGAAGCAGCCCTGGAGAAGGTAGCTTC
TGTTGCGAGGCAGATTGTCCAGAGGTCTGCTGCTCTCAGACGGGGCCCTGGAGAGGATA
GCTTCTATCCATAGGCAGG

Sequence 1509

TABLE 1

249/467

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATAGCA
GTGGAAGCTGCAGAGGGCCGAAACAAAATGAAGTTTTCTACCAATGTCCAGACCAAATG
GCTCGAAATCCAGCTGCTATTGACATGTTTATTATAGGTGCTACTTTTACTGACTGGTTT
ACCTCTTATGTCAAAAATGTTGTATCAGGTGGCTTCCCATCATCAGAGACCAAATTTTC
AGATATGTTACGATCCAGAATGTGTAGCAACAACCTGGG

Sequence 1510

CTCCCGCGGTGGCGGCCGCCGGGCNGGACTTTTTTTTTTTTTTTTTTTTTTAAAGAT
CCAGACTAAGACACATCAACAAGAAATTTCCAAATACCAGGTCAAGAATACTTCACATGT
TTCTGGAGGGAAAGAAAACAGTTCATATACAGNGAATCAGGAATTACAATTGCATCAGAC
TTATCAACAGCATCGGGAAGATAATGNAAAATACCTTCAAACTCTNGAGGGACACAAG
AAGATGCTGCCTGGCCACAGGAGCGAGACTGCTGGCCTCCAATCAGTCTTNTGGGCAGGC
CTNTGATGCAATTACAGGGCTAAGGAACACGGTAACCAATGTGCCATTGGCTGTGCTAA
AACCAGNGGCCCCAGGAAGAATCCTGTTGACACTGGCTTGGAACATGAGGCTTAA

Sequence 1511

CGACTACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAAGGTACTTTT
TTTTTTTTTTTTTTTTTTTTTGGCATATAATCCAGTTTATTAATACAGATGATGGGC
CAGACATGGTGATAGAGAAATACAGATTAAGAAACCAGATCAAATCCTTTTAAAGGAATT
ATNTAGNGGAAAATATNTCAACTNNTNTTTACNCTACTATTATTATCTTACACTTCA
AATCTTCACCTTTCCATTTTGACNGNCGCTNTTTACTTCAGNNTCCTGAAAACATNTTT
CCAACAGAAGTTACATAAAAATNCTAATCTTCAAGGGGCTTTCTAAAATATTTTATATCAC
GTCATTAATAATCTTCTTCACTAGGCAANGGTTNTGTCTTTATGGGGGCTG

Sequence 1512

CCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGACAGAAATGGAGTCATCAGTTTATCA
ACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACC
ATATTCCAGGACAAAGCCCAGCCAGGCACCAATTACCAGAGGAACAAAAGGAATAT
TGAGGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATTTTCTGACTG
TCAAGTTTCAACATTAGGTCTGTCCCAACAGGCACCAACCCGGGGGTGGACTCCCTGT
GTAACCTCTCGCCACTGGCTCGGAGAGTAGACAGAGTTGCCATCTATGAGGGAATTTCTG
CGGATGACCGGAAATGGGTACCTCGGCCGCTCTANAAGTAGGTGGGATCCCCCGGGGCTG
NAAGGAATTTGATATCNAGCTTATCGATACCCGTCCGACCCTCGAGGGGGGGGGCCCGG
GTCCCAGCTTTTTGGTCC

Sequence 1513

NGGGGCCGCCGCCCGGGGCCGGNCAAGCAANGGGGGGCCAACNAAGGCNNGGNNNCC
CCNNGGGGGGNANGGAAAAACGNNGGNAANCCCCGCGGCAACCAAAAGGGGNCCAACAACA
AAACAAGAACCAGGAGGCCCGGGGGAGNCCANAAAAANGGCGGCANAAAAGNCCCNNGG
GGGGGGGGGGGCCCNAAAAAGGAGGNGGGGANGCCAAAAACCAGCNACNAANCAAAAN
GCGGCCCGGGGGGGGCCGCCCAACNNGGGGCCCGAGCCTTAAAGNCCCAAGAANCCGCGG
GGAAAAAACCCNNGGNCCGGGGGGGCCCAAGCCNNGGGCCAANNAAAAANGGGAAAAA
NNCGGGGCCCCCAACCCGCCCGCCGNGNGGGGAAAAGGAAGGGGGGCCGGGNNCNCNCGC
CCGNAANNCCGGGGGGGGCGGCCCNCCGNGCCCCGCCNNNCCCNCCGCGGGGCNAAC
CNGGGAACNCGCGCCNCGGCCGCCNCCGGGGGNGCCCGGNNNACCNGGGANGNGGNC
CGGGCCGAAGCCGGGGNANGCAAGCCGNCNAACCNCAAAAAAGGGGC

Sequence 1514

GTNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAAGTCTTNTAAATCTGGTGTGTTT
TTTACACTTGAGCACATCTCAAATGAAATAGCAACATTTACATGCACAAGACTCACAT
ATCTTCTGATGGCTATCTTGTGAATAGCACAATTCTAGGAAGTTCAAAGGGGGAAACAA
TTGCTTCTCAAATTGATGAAGGTAGAGAAGAATGGTATCAGAGAACTGATTAAGCAGGG
ACCTGGGAATCTGAGTTGAGTTCCGGGGCATGTTTGTCCCTAGCACCATGACCTACATG
GCAGTGTCTTCTCATACTATTNTAAGAGTCCCTGG

Sequence 1515

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGGCCAAGC

TABLE 1

250/467

TGGACTGCATAAAGATTGGTATGGCCTTAGCTCTTAGCCAAACACCTTCCTGACACCATG
AGGGCCAGCAGCTTCTTGATCGTGGTGGTGTTCCTCATCGCTGGGATGCTGGTCTAGAG
GCAGCTGTCACGGGAGTTCCTGTAAAGGTCAAGACCCTGTCAAAGGCCGTGCTCCATTC
AATGGACAAGATCGAGCGGCCGCGGGCAGGTACTTCATGAGACAAAATGGAAAAAGGAGA
ATTAATTTAAATGCACAACTAATATTTATCTACTACAGACATAATATTTCTCAGTTGTG
AACTAATTACTATGCTTGAAAAATGCTAGCATCCTCATAAATATTTGGTTCTATTGGGA
TACAAAATCTGATTTGCAAACTTTGCAAAGGCACATTTT

Sequence 1516

CCGGGCACGGTACGCGGGGGCATTATCTTCACTCTGATGAGGGCTCAGACTTGATAACG
CCCGTGGTGCCCATCCCTATAGGAGCTGGTGAGATTGCAGCCTGCTGCCTCCCTCCAT
CAGCCACAGCTATTGGATTTCCACCCAGAATCTTTAGGTAAATGAGGTAAGTCCTGATT
TTTAAACTTCTTTTGAATCTGGAATCCAAACACCTGAGTGGAAGAGAAGCCTGCTTTA
AACTGGACAGATGAACTAGAACAGACTCTTGAGACGGCTGGCAGGAAGTGAAGCTCAC
CTTACCTGGGCTTACCTCACTGGGTCAAATCAGAATTTTATTTTGGAGGGCAGGTTGGCT
ACTTTGGATATTATCTGNGAATTCCTGCATTGGCTGGACTTCTAATCTCTGNGAATTTA
AAAGCC

Sequence 1517

CCGCGGTGGCGGCCGAGGTACCTTTTAGTTATTGACAAGGTAAAAATAGCACTCTCAGTT
TTTCAGTATTACAGAGAGCAAATAGTTTCCTCTCCTGCTCTGNGCAGTAGCTTTTCCAGA
ACTATGGACAAAATTNGATCAGAAAGAAGATTGATTATTTCTCATCTTTTTTCTTTTT
TTTGAGACAGAGTCTCTCTNTGTCCCCCAGGCTGAAGTGACGCGCATGATCTCAGCTCA
CTGCAACCTCTGCCTCCCGGGTCAAGTGATTCTCCTGCCTCAGCCTTCTGAGTAGCTGG
GATTACAGGCGCGTGCCANCATGCCCGC

Sequence 1518

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTCTTTCTTTCTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGCANNAAAAANCNT
NATTNCCATTNGGCCCAAGGCTTGTTAGGAAAGTAAAAAAGCCCCNATTGGCNGGNGG
GNNNGGCTTAGGCAAAACCCCTANTACTTTGCANGGGGCCCTCNAAAAAGCCCGNGGGCC
CNAAAAAGNCCTTAAANCCNCCNTGNAANAGGGCCCCCTTNAAAAAAACCCTCNNNNN
NAAATTTTNGGGCCCCCCCCCGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
TNTNNAACNCCNCCCCCCCCCCCCCNAAANGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
GGGGGGGNNNGGGCCCCCCCCCCCCCCCCCNAAAAAAGGGGGGGGGGGGGGGGGGGGG
TTTTTNCNCCCCCCCCCNCCNNNNNNNNNNNNNGGGGGGG

Sequence 1519

CCGGGCNTGGACTTTTTTTTTTTTTTTTTTTNCTTGCTTTTGGTTTTTCTTCGATA
TCTTCAAATCTGTGTGAGAAGAAAAATGTGTTTCTGACTCCTGTAGTAGATTAAAAATCA
GTTGGTATTTCTGGAGCTGCTATCATTTCTTTATCATCTTCTGGAACACCTCAATGTCAG
AAATATATTCATATATTTACGTGGGTAAATGGNNGGCTTGCTTCTTTCTTAAGACAA
TTCTCACGGNGGGCCAAGCGCCCTCCGGGTGCCCTCCAACTTNTAGAAGCTTCGCCT
CCGCCATTTATAACTTACCTCCCCGCGTACCTN

Sequence 1520

CCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACA
CTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACG
ATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTG
GTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGCTCCACC
TACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGC
AGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTTCCAG
GACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATATTGAGGATGCG
CTCAACCAACTCTTCGAAACAGC

Sequence 1521

CCGCGGTGGCGGCCGCCCCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGT

TABLE 1
251/467

CACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAA
CTTGACGATGGACTCCGTGTCGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCC
CAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGG
CTCCACCTACCAGTTGGTGGACATCCATGTGGCAGAAATGGAGTCATCAGTTTATCAACC
AACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATACCAACCTACCATA
TTCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATATTGA
GGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGT

Sequence 1522

TACTATAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTGGTGGTAATTGAGCTGGGAAAAATTCAGAATTGGGTCATAATTAATGGTAACTAAA
CAGATTTGNGAATATGGGACATCTGTGNCCTTGAACATCAGTATGATTTGNCCCCATA
TTTCTTCAGCCTGGACAATAGAAACAGACAGGGGGAGGGGGGTAAAGTGCANTAAAGTAGG
CTGAGTGATGTGGTGTAGCAGCTGGAGTCCAGAGAAGTTCTGACAGTGCAGGGAGCAGC
CCCTTTGTTCTTTGGAGCACTGGAAGGGGTGAGCTGCATCTGAGGTGTTCAAGCCACCAA
CAGGACAGGGTAGAGGACTAAGTAGCACATGTCCTCCAGAGCAGCTTCTGTCTTTGTGT
GGTCACATCACATCGGGGAA

Sequence 1523

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTT
TTTTTTTTTTTGTCTTCTGGTAAAAAGAAGCATGTTACAATTTTCCCCCAATTCACATA
GGACTCTAAGAACATATTTTAAATCAGTGCTTCCATACAGGAACGAAATCCACTATTTTA
GAATTCTAAATCTTGTTGAAAAGCAACCTTATCTGAAGAGTAAACAAGAAGATTCAAAGT
TAAGTATCAGTGCAGTCCAGAGCCCCTAAATGAATAAACTGAATGTATCTTAAAAATAG
GATTTGCACACCAGTAAGAGACTTGTTTACGATTCTGGGGAGGAGGGAAGAACTGTAAG
AGGGAGAGAAAAGGGAAGAAAAACAAGAAGAAAAATAATNGGAAAAAAAAAAAAAGAAAGA
AAGGTTTGTGTTAGCTCAAAG

Sequence 1524

ACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAATTGAGCTTAG
TGATATTAACITGGTAAATTAAGCCAGTTTGTCTCTTTGCTTTATCTGTCTTGGAATC
TGTATCAGTGGAAATTAATAGTCTTTACATTTGATGAACCCTGTTTAGGTGTTGGAAT
ACCCATCTATTTGTTAAAAAGGCAAGGTCCCATGATTTAGTGAATGGGGGATACAGACAG
CCTTTATTCAAGTAACTGAATAAACAAGAATTAGAGAGTGTGATGAGTTTGAATAAAA
AATATAGNTCATAAAAACCAGAAATGTGATAGAGCATAGTGGCTGGAAGAAAGTTACCCA
AGTGGCTTGGGTAGTCAATGAAGTTGACTCCAACATGCAGTAGTACGCCGGGTCCTAAGA
TAGAGATTAAGTCATGGTTTAAATGAGGAACAATCAGTAA

Sequence 1525

CCGCGGTGGCGGCCGCCGGGCGAGGGTACACCACTGTGCCTGCTTTGAATCCTTTACGAA
GAGAAAAAAATTAAGAAAGCCTTTAGATTTATCCAATGTTTACTACTGGGATTGCTT
AAAGTGAGGCCCTCCAACACCAGGGGGTTAATTCCTGTGATTGTGAAAGGGGCTACTTC
CAAGGCATCTTCATGCAGGCAGCCCTTTG

Sequence 1526

GAGCNCCCCGCGGTGGCGGCCGNTGTACTTTTTTTTTTTTTTTTGTCTNTTAATTGGA
TGCCTGGAGACAATTCCATTTCAATTACCTTATTGGCATGACNAGATATACAAGGGCTGC
CAATGTCAATACATTAAGACTGAGCGTGCTGGAGCAGCAGCCAGGGTTCAGGGCACTGCT
GTGTCTCTCGGCCACGGTGCACAAAGGCAGNTTCAAAGCATTTCAGCATGATCGCTTC
CCTCTCTCGCTCCTGGGGAGAGAAGGATCCTGCACACCACAGGCAAATCATGCTGAAAT
TGAGGNGGNGCCTTTGGGACTCCCATCCCATCACAGTCTTGGGAT

Sequence 1527

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGTGGATATTGGTTGAACA
AACAGGTGGGCAAAGTGAGGAAGATAAGAAGTCCATCCGTTCAAGTTTCCCCACTGCGGAG
GGAATAACACTGTCTTTCCACAGGTCACAGACTGGGATGAGCAACGGGCTGAAGGCACGT
TTCCCGGAAGATCTGAAGTGGCTGCATCTCCCTTTCCTGTCTCCTCCATCCTTCTCCCA

TABLE 1
252/467

AGATGGTGAAGGGGGACCTGGTNCTG

Sequence 1528

AGGTACGCGGGATGGCACATANGACATCAGCTAGGCTTTTGGGAATCGTTTGTGTTCTTT
GTGGAAATGTCTTTAGAAGCACCCATGAAGTAGTGTGTTTCAGACTGTGCACACAGAAAA
CAGGCTCTGCCTTCACATGTGAGACGGTGGACTTTTCTNTGGACAAAATGACAGCATNC
TGGCGACTCCACAGTGGAGCTGAGCGCCACTCCCTGTAGCCCGATCTGGGACTGAAACGC
TTACACCTCTGCCTTAGAAGGAGTCCCCCNTGCC

Sequence 1529

CCGCGGTGGCGGCCGCCGGGCAGGGTACGCGGGGGAATTAGTCCGAGTGGAGAGAGCGA
GCTGAGTGGTTGTGTGGTCGCGTCTCGGAAACCGGTAGGCGCTTGCAGCATGGCTGACC
AACCTGACTGAAAGAGCAGATTTGCAGAATTTCAAAGAAAGCTTTTTTCACTATTTTGA
CAAAAGATGGGTGGATGNGAACTATTAACCAACCAAGGGAATTTGGGGAACCTGTAATG
AGGATCTTTTGGGCCAGAATCCCCACAAGAAAGCAAGAAGTTTACCAGGGAACATTGAT
TTAATGGAAAGTAAGAATGCCTTGATTGGTTAAATTGGCACCAATTTGGACTTTCCCTTG
AATTTTCTTGACAAATGGATGGGCCAAGGAAAAAATTGAAANGACCCCAAGNACCNGTTG
GAAGGAAAGGAAAA

Sequence 1530

CCGCGGTGGCGGCCGAGGTACGCGGGTGTTCTTTTTGTTCAAAGTCTATTTTTATTCTT
TGATATTTTTCTTTTTTTTTTTTTTNGNGGATGGGGACTTGTGAATTTTTCTAAAGGTG
CTATTTAACATGGGAGGAGAGCGTGTGCGGNTNCANCCCAACCCGCTGCTNACTTTTCAN
CCNNTTTTCAACNGNCTNTGGGTTTTTAANACCCTNGGNTTTNTACCCCNNTCCTTTGNA
AANCCCTNNNCCNAANNNGNGGGGCAANANCCNGNGGGCCCNCTANAAAAANANCTTGCGG
CCCTGTCCCCCGGGGTTTTGAGGACAANTTTNCCCAAAGCNAAAAAANAGANGTTTTTT
CNCNCTCNNTCCTGGNGGGGGGGGGGNGAAAAAANNTTTTTTTTCCCN
GNNNNGGGGNGGNNNCTTNAAAAAAANAATGTCCCCCCCCCGNNNNGTGGGCG
NNAATTTTTNTAANAATATTTTTNNCCCCCCCCCCCCCCCCCGGGGGGGG

Sequence 1531

ATAGGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGAGGTACCATTCGGGGTCATCCGCAG
AAATTCCTCATAGATGGCAACTCTGTCTACTCTCCGAGCCAGTGGCGAGAAGTTACACAG
GGAGTCCACCCCGGTGTGGTGCTGTTGGGGACAGACCTGAATGTTGAACTTGACAGTC
AGAAAAATAACTCTTGATGCTGCTGTTTCGGAAGAGTTGGTTGAGCGCATCCTCAATTT
CCTTTTGTCTCTGTAATTGGTGGTGCTGGCTGGGCTTTGTCTGGGAATATGGTAG
GTTGGTGATGGTGAAATTCAGGTAGAAGTGCTGGGTGCTGGAGCTGCTTGTGGTTGATA
AACTGATGACTCCATTTCTGTACATGGATGTCCACCAACTGGTAGGTGGAGCCCAGCCA
ATGGGAATGAGGCATTAGGGTCTTATCTAGAAAGACTTGCTCCACCAGGCTGGGGTCCA
AATTGGAG

Sequence 1532

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGAGAAGGTCCCGGCAGCACGCACGGA
AGAAGACGGACCCCGCGATGAGGGCGGCGGCAAGGAGCACCTTCATGTTGCGTTCCGAGA
GGCGCAGCATCCACAGGCCCGCGTACAGACTGGTTTGGTAAATGCTAAACTTTTGTGTC
TTTTGCCTTTTTAAAGGAATTGTTAACATTGGAATTGAGGGTATGTACCT

Sequence 1533

AGGTTTTGGGCGATCGTTTTCATACGAAATATTTGAGATGCTTTAGATGTGTGTGCATGT
CAGCTGCCACCTGAAAGAAAGGCCTCATTAAAGATTTCACTGATTAACCTTTTGATTGT
TCTTGGGATCTCAGATGGGAATTCACGCTGCTTGCTGCAGAGCTCTTGGGCTAAGTGAT
TTTCTTAATTACTGAGAAATGCGTGTTATCAGTAAGCAGTGAAAAGTCTTGAAAAAATA
AGTAATTTTAAAAAANGTCTGCCCG

Sequence 1534

NCGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTT
TTTTTTTTTTTTTTTGGNGGNNGTTTTCATTTTCTTCTGGAAGTAAATTTTACTTCT
GGCCTTGGTGGTCTTTGAGGGTCTACATCAGCCTNATCTTGTCCACTGCCAGCTCCTTGA

TABLE 1
253/467

GACTTTCTTTCTTGTCTAGGACCAGTTGAAGCTCATTATTAACCTGCTGCAGCTCCTCA
CCATTCTCCTCATCGNGCCTCCATTACACGAGCAGGGCGTGCCTGCTGCTCACTGTGA
TCCAAAATCTCCTNGACTTGCTCAGGGGCATNTGTAGCCTCC

Sequence 1535

CACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTGGTG
TTTTTGGAAAAGTTACATTTAGATCTATTCTGAAGCTGTTCATTTTTAACAAATAAAAT
GTTACAGGTTTACATGATTTATTCGCAAAAAAAAAAAAAAAAAAAGTACTGTCTGTGA
ACAGCAAGGAAAATATGATTACACCTAAGAGATGAAATTGGCATAGGCGAGAAGTCAGAA
AAATAATCTATACAGCTTGCATGGTTGGGGAGTTAGGAGAGGCCAAGGCCACGTGCACGT
AGAGCAAGAGGTAGAAGAGGGCCCGGGGGCTAGAGCGCACCTGGTGGATAGTGTGAGAA
TTCACACTGGCTCAAGCCTTGAAGACCACCCAGGGGTGCGCCTTAGCAACGCACCTATG
CAAGACCCCAACAACCTGGCCCTTGAAGGAGCTTTTTACTGGTGGGATGTG

Sequence 1536

AGGTACTAATATCCCTTAATGGCAGAATGTGATAATCATGGAATTAATTATTGCTAAAGT
AGTTTTCAAATAAAAAAAGAAAAAGAAAAACAAACAAATTAACCTTGACACAATCTGA
CCAAACACGTGTCAATTTACAATTTCAAGGTTATTTACAAAATACCTACATTTACACAA
TAGGCTCCCGGCAGCATTTCAGACAAATGTTCTTTTAATTTATCCTGACATGCTATAAA
TGAATAAATTACACTATTTTAAAAATTATCATCAGTAAGTTTTCTTTCTCATGGGGGT
CAANAGCAAAAAAGAAATNNAGGCNTGCCAAAGGAAGGATTTGGAGAGGGGAAAGCCGC
CACGCACCACAGTATAACCTTAAAAATAACAGGGAGGGGGCTGGGGGGAGGGGGTCAAC
AAATTCACCTGAAACCCCTCAACAAGTGGTGGATGCCTCTTCCAAAGGGGGGNGGAAAA
GGTTCAANCTTGGCTTTTATTAGGCCCANTTTCAAAAAAGGTATTTTTAAAGNAAAA
ATGGTTTTTGGTANGGGGAAAAA

Sequence 1537

NCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTCAAACACCTCATGA
GGCTGGCCAGAGATGACACCACTGCCCGGATGCAAGGGGGCAGCCTTGCTTGGACCCC
GTTCTGAATCTCAGGCTTCATCTATTAGGCACACTGAGCAGAAACACTCCTCCCTGCCAC
TTCCGAGTTGCAGCAAAAAGGGTCTAATATGATTTAAAGCAAATAATTTTAACTTCAA
ATTTTCATTACTGTCTACTTATGAGGACCAATAATGTAATGACTAAGACATCAAATTA
CATGTAATATGAATAAAACAGTAAGAAAATGATAGTTACTTATAATTGGATCAACATAC
AAAAAGAACGTCATTTGGCCAAAGTAAACGGTTAAAAAATAGTGTCTATAAAATCACC
ATATAAAATCTTAGTATGTACCTGCCCG

Sequence 1538

CCGCGGTGGCGGCCGCCCGGGGCATGGTACAAAACAAATTCAAAGGGTTAAGAATTTCAAG
TTGGTAGCTTCAGAGCATTAAAGCCCCAAATGTGGGGTCCCTTCTGAGCCCAGGATTATGT
GTGACTGCACTGGTCACATTGCCATGAAGCCAGCCCTGGTGGTTGGTAGAGGGGTGGGCA
CTGGACCTAAGCAGGGCCAATCAGAGCCATTCTGGAAATGGATATATAAATATTAGGAA
TGCAAAGTTATTTATTTGTTAGAGTTGAACAACNGTGATCTGTAGAAAACCAAGTCACA
TTTCCTTAAGGATGCATNAATAAATATGAGCTAAATGTAATAATTAGAATTTGGTTTCC
AAGCAGATTCCATGCTCTAATTCCTGGATAGGTGAATATAATAAGATGATNTATCCNTG
AATAAGNTNCTTTTNCCTTTGCCCAAGGGGACANGATGGTAAATAAGGGCTACTAAATCAA
GTTGNCCTTTAAATAA

Sequence 1539

CCGCGGTGGCGGCCGCCCGGGGCAGGTACAAAACAAATTCAAAGGGTTAAGAATTTCAAGT
TGGTAGCTTCAGAGCATTAAAGCCCCAAATGTGGGGTCCCTTCTGAGCCCAGGATTATGTG
TGAATGCACTGGTCACATTGCCATGAAGCCAGCCCTGGTGGTTGGTAGAGGGGTGGGCAC
TGGACCTAAGCAGGGCCAATCAGAGCCATTCTGGAAATGGATATATAAATATTAGGAAT
GCAAAGT

Sequence 1540

GTAATTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCATGGCCCTTCCTT
TGAAATCATTTTTTCTTCCAGGCCCTTGCCTCCGGGCCTGGGAGACAGAATGAGAGACA

TABLE 1
254/467

GCCCCAAGGATCTGTGATACACTTTTCAGGGTCATTTTTTCTTGTCCCTGCCAGTCCAGG
CACACCTTTTGTGTTCTCTCCTGAACATACTTTCTCATTTTTTCACAATATGGAAAGGCTG
ATAATTTTTCAAACCTTTAAGTTCTCTTTCTTTTGATTGACCATTTTGTCTTTAAATCA
TTTTTCTTCTCACATTTTATTATTATAAACATTCAAGGGAAACCAAGCCATTATTTTGCT
TAGAAATTTATTAGCCAGCTGGGGCGGTGGTGGCTCACACCTGTAATCCAGCACTTTG
GGAGGCCCGNGGTGGGGTAAGATCACCTGAGGTCAAGGAGTTTCGAGACCAGCCTGACC
AATAATNGGTGAAACACTTGNCTTNTACTTAAAAAATACCAAAATTT

Sequence 1541

GGAGCTAAACCCCGNGGCGGCGGAGGTACTTACCCTCAATTTCAATGTTAACAATTTCT
TTAAAAAGGCAAAAGACACAAAAGNTTAGCATTTACCAAACCAGTCTGTACGCGGGGCCT
GTGGATGCTGCGCCTCTCCGAACGCAGCATGAAGGTGCTCCTTGCCGCCGCCCTCATCGC
GGGTCCGNCTTCTTCTGCTGCTGCCGGGACCTTCT

Sequence 1542

CCGCGGTGGCGGCCGAGGTACACAAACGAGATGCTACCTAGGAGAAGGGTATTCTTTTCA
CTATTCTTTCAAATTTTCTGTATGTTCTGAACATTTTCATAGTAGAAAGTTGGGGGAAAA
TCTGTTTCATAAACATTTCTCAGCAGCAGTCCAGTCTATTGCATTTTAATTGGTTGTGA
TATCATTGTTTTATGCAATACGTTCTCAACAAGTATATCCTCCGGCAAACCTGAACAAGGA
CCAAGTCTGTTCTGCCTACAGCTCTGCTTCTCATAGCTGCTTTCCAGAACGTGACTCTT
GCAAATTATCAAGAAAGGGGAAGTAATCTAAGGGATCCCAGATCAACAGCCTNATGAAGA
CCTTAATTTATGNTTCTAANATAAAAGATAGGAAGTTTTCAAAAAAGCCCCTGCTTAC
ANAGGATCAANANCAGGGGGTGGGCCCTGCTGGGCTTNCAGTGGGATTTTTTGAGCATTN
CTTTCCNGNGGNCNGGNAAGGGNGTGGNGTGAGCCCNAGGNGGAAAAAATTT

Sequence 1543

CCGCGGTGGCGGCCGAGGTACTCCTTCGTAAACCATGGAGAGCCAGCCCAATGCACAGCA
GTGGATATCATCTTTCTCAGAGTCCAGTATCACAGAATCACGACTTTGTCCAGCTGCAGG
TGCCTGCAGGTCACACTGGCTAACTACTTCTGTGATGGGCTCTTCTTTCTGAGGTTCTGC
CAACTTGTCTACTACATAGGGTTGATCATCCTGTTGAGGAAATATTTCTTTCAATTTGCTC
TGAGCTTAATATTGTAATTTGTATTTGATCTGAGGCTTTTGGAGTCAGGACTGGTTTT
ATCAAGCAGTTTGATCTTCTGAGGTCTGGTATTGTAGTTTGCTGGCCACAGAACCTTCA
CGTGTATTCACAGCCTCAATGCCATAAGGAAACTCTTT

Sequence 1544

CCGCGGTGGCGGCCGAGGTACTCCTTCGTAAACCATGGAGAGCCAGCCCAATGCACAGCA
GTGGATATCATCTTTCTCAGAGTCCAGTATCACAGAATCACGACTTTGTCCAGCTGCAG
GTGCCTGCAGGTCACACTGGCTAACTACTTCTGTGATGGGCTCTTCTTTCTGAGGTTCTG
CCAACTTGTCTACTACATAGGGTTGATCATCCTGTTGAGGAAATATTTCTTTCAATTTGCT
CTGAGCTTAATATTGTAATTTGTATTTGATCTGCTGGGCTTTTGGAGTCAGGACTGGTTT
TATCAAGCAGTTTGATCTTCTGAGGTCTGGTATTGTAGTTTGCTGGCCACAGAACCTTC
ACGTGTATTACAGCCTCAATGCCATAAGGAAACTCTTTAAGAAGTTCTGACAGCTGGT
CATGTTAGGTATAAGAACAGGGTGCCTTATCACTGGTGGATTTCAATTTCT

Sequence 1545

CGAGGTACTTTTTTTTTTTTTTTTTTTTTTGGGGAGTTTGTGTTTTTAACCAAATTATNA
TAGATGGAAGCATTAGGCAGCTGAATGTTCAATTTGCCTTCANACATCATNTCCTATTTCA
TTTGCTNGNCTCGCATTTAAAAAGAATCATTTATCAGCAAAAGCATCATTTATTTGTTTAA
ATGACAAGGTTTAGCTAGCAGAGNAGAGTTTGCNATGCTTTTAAANAAATAACNTTTGAC
TTTTCTTCAAGACACTACAAAACCATTTGTTCAAAAAAGGCTGCCCAANGTCATTTANAA
GAATATTTTTCAAAANGTCTATTTTNTATTTTTAAAAAAGCTTGCCTTTACCAATCTTT
GGTTTTGAATTCACCTGGGCCTTTTCTTTTAACTTGAAAGGGCTTAA

Sequence 1546

GGCGGCGGCCGAGGNACAAGNANCNNTTGGNGGAGGGGGGNGAAACCCAAANACCCGAACN
NGGGACTGNGCAGACAAGCTATATCTTAANCCNCNCCGGGCCAGACCNCNAGCAAGGN
GAGGAAGCAAAAGNCCACAGNNACNGGGCAGGNAANNGGNANAAANGAGGGNGNGGGGC

TABLE 1
255/467

NGGNTGCGGTGNTTACAGGGGGAANCCCAACACCCCGGGAGGNCGAGGCAGGAGGANCG
CCCAGGCCAGGAGGNGAGACCAGCCNNGGCAACANGGNGAAACCCNGGCNCNACAAAA
AANACAAAANNAGCNGGGCANGGNGGNNNGGGCCAGNGANCCAGCNANNNNGGGGAGGCN
GAGGNGGGAGAAAANGCNGAGCCCAGGAGGCAGAGGNGCAAGNGAGCCCAAGAANGCGC
CACCGGAACNCCAGCCCAGGCAACAGAANGAGAACCCGGNCNCACANNAAAAAAAAAAAG
AAAANGAAAAAGAAAAANGNCCNGGCCGGGCCGGGCCGNNCAGAACCCANGGGGAAC
CCCCCGGGCNGCAGGAANNCCGAAANCAAAGCCAACNGANACCGGNCACCCCGNGGGGG
GGGCCNNGNACCCANNNNNNGGNNCCNNAAGGGGAGGGGNAANGGCNCGCCNNGNC
GNAACAAGGGGCAAAAGCNGGNNCCNNGGGGGGAAANNGGNANNCNCGNCNCAANNCCC
NNNAAAAAACNAANCCGGAAGCAAAAGGGNAANNCCGGGGGG

Sequence 1547

AACACCACCGCGNGGCGGCCGNCNCGGCAGGNACTTTNNTTNGGGGGNTAAAAACCCC
CCNAACACNNGGGCCCTAGNAGAAGGCAACNTTCATTNCAAACGAGGGGGCCCCNGCCCC
GNGAAAAACGGGGAACACGACGNCNAAGGCAGANCCCCGNAAGNACCTACNNNGGACAG
CCGGGGCAGGCGNGCAAANNNTTGGGCNNGGCCNCGCAAAGCACAAAGGGGGACACANA
ACCACTGCCACGGCGCAGGAGAAAAAAGAAACAGCAAANCACGAGGGGACAN

Sequence 1548

CCGGGCAGGTACATCANTTNTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAA
AGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTC
CGTGTGCTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGGTGGAGCA
AGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACAGTT
GGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAG
CACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCCAGGACAAAGC
CCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATATTGAGGATGCGGTGAGAAG
GGGGTGCTCAACCAACTCTCCGAAACAGCAGCATCAAGAGTTATTTTCTGACTGTCAA
GTTTCAACATTGAGGTCTGTCCCCAACAGGCACCACACCGGGGTGGACTCCCTGTGTAAC
TTCTCGCCACTGGCTCGGAGAGTAGACAGAGTTGCCATTCTATGAGGAATTTCTGCGGAT
GACCCGGAATGGTACCTTNGGCCGNTTCTAGAACTAGGNGGATCCCCCGG

Sequence 1549

CCGCGGTGGCGGCCGAGGTACGCGGGGCTTGCATCTCTGGGGCCAAGGAGTGGTGGGTGA
GATCTTCCATGGCCCTGGCATGGGTGATATAAGCGGGACCGGTAAGGTGGTGGAGCTCTT
ACCAGACCCTGCANAACCTCTCCGTGGTGTGAACTTCTGGAACAGGGTGTGTCATG
TTTTCTCATAATGCAGGTTGGTGATGGTGAAGTTGAGGGTGAACGGCACCAGGAGAGGG
CCAGCAGTTGTGGGGCTGGGGAGGGAGGATGGAGTCCCTGACCCAAGGTCCACTGTGGAG
GTCCCAGGAGCTGAAAAAGT

Sequence 1550

AGGTACTTTACAAACAAGTCTGAAAAAGGAGGGAGTAAAGTATGGAAGAATGATCTCTGG
ATGTTGCTACTGGCCTCAAAAAGCAGTGCTACAGATTTCTGTGTGAAGAGAATACGCTG
TTCACACATTTTCTATTTCCAGGCATGAAAAATATTCTATTGGGTAGAAGAAATAGGAAA
ATCTCTTATGACAAATGAAAGACAGGTGCAACACACCAATCCCTGTCTAGCAGTATAAA
GCATATTGGGCTCAGAATTTGTCTGTTGCTAGCACCTGGCTTTCATACTATATCCTTATC
AAATAATCAGATTGAAAGTCCAAATCATTCTTAAGCAAGCAAAAATCCTCAGTGGCCATA
CCTCA

Sequence 1551

GGCGGCCGCTCTAGAACTAGNGGANCCNTTTTGGCGGGGGGAAAAAACCCCAAGCCANC
GANACCGNCGACCNCAGGGGGGNNCCCGGNACCCAGCGNNNGCCCCNAAAGAGAGGGNN
AANNGCGCGCNGGGCGNAANCANGGNCANAGCNGNNCCNNGNNGAAANNGNNANCCGCN
CACNTTTTNNNTTNNCNGACGAGCCGGGNGCANAAACCCCAANANA

Sequence 1552

CCGGGCAGGTACGCGGGCTGCCTGGGGATGGCAGCCGCGTGCGTTCCCTGTGCTGTCTG
TAGGGTTGTGGTGGCTTTCTGATATTCAGGTTGGTCCCTTTTCTTTTGGATGGG

TABLE 1
256/467

TTTCGAGGTTGGGAGAGGAAGCTCAGGGATGGAAGTACTAAACATATGTGAGATGTTTC
CTTGTTTGCTGCTCATGGAGGTTTCATTTCTGAAGTCTTTCTTGGGAGGGAAAAGGATG
TGTGGATATATGAGGTGACTCTAGAACCCTCATTTTATGGATGAAGAACTGTGATTCAC
AGAGGGAGAGTGATTTGTCCAGTGTACGTGGGGAGCTGGCCGGGGAGCCAGACCTCCTG
TACCTCGGCC

Sequence 1553

TACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATTTCCATG
GGCCCTGTTCCCATTTGATGTATACTGCTTCCTTACTAACAGTGAGGGATGACTTTTCATCA
GTCTTTTATCACCTGAACAGTCTTCCGGCCATAATGATAGTAACTATAAGCTGATGCAGC
TGTGGTGAAAGCTGTAAAACACCTTTTATGGAAGAAAAGAAATAAAATGTAGTTGTCAAG
TCTAAAAAATAGTAGCAACGGGAATCATAATGAATACATGCAATGAATTTAAATGTAAA
AATGAATTTAAAAAGTAAAAAGGGCTCTGTGGTGTAAATTTTCTTAAGTACAAGAGTCTA
AATACACTGCTTTTCTTTAAGAGTTTCAATTTAATTAGTAACGTCAAACAAAATTATTCTA
GATAATGAGCCCTACAAA

Sequence 1554

ATCGACTNCTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACGC
GGGTGGCCAGATTAATTTTCCAGCCAATAGAGGAAAGTTTTATATATTTTTTGCTAAGG
TGCTGGAGAGGGGAAAGGATGCCACACTTCAGAAGCAGGAGGACGTTGCTGTGGCTGCTG
CAGTCTTGGAGCCCCTGCTCAAGCTGGCCCTGCTGGCCGGCCTGACCATCACTGTTTTTG
GCTTTCCTATTCTCAGCTGGCTCTGGATATCTACGGAGGGACCATGCTTAGCTCAGGAT
CCGGTCCTGTTTTGCTGCGTTCCCTACTGTCTCTATGTTCTCCTGCTTGCCATCAATGGAG
TGACAGAAGTGTTTCACATTTGCTGCCATGAGCAAAGAGGAGGTGACAGGTACCT

Sequence 1555

CCGCGGTGGCCCCGCCCGGGCAGGTACAGCAAAAAAGAACTGAGAAGCCCAAAGTCTTT
CTTGTTAACATCCACTTATCCAACCAATGTGGAACTTCTTATACTTGGTTCCATTATGA
AGTTGGACAATTGCTGCTATCACACCTGGCAGGTAAACCAATGCCAAGAGAGTGATGGAA
ACCATTGGCAAGACTTTGTTGATGACCAGGATTGGAATTTTAAAAAATATTGTTGATGG
GAAGTTGCTAAAGGGTGAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT
ATAATAGCAGCTATTTTAATTGGCAAGTGCCACTGTGGAAAGAGTTCCTGTGTGTCTGA
AGTTCTGAAGGACAGTCAAATTCATCAGCATGGGGCTGTTTGGTGCAATGCAAAAGCAC
AGGTCTTTTTAG

Sequence 1556

ATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGTCCACATCCCGAAGGCCATAGCGTC
GAGCAAGGTCACATGGATGGCAGCACCTTACCACTCAGGCTCAGGATATTGGGATCTGTT
GCCAAAGCCACCACACATTTGCCACTCAATTCTGTGGTTTCCGCAGATGAGAAGGCTGAT
TTGAAGTCTTCAACACAGGATCCTGCAGGACCTCCTCCTTTGCCATATGCTCCTTCAGC
AGTTCTGTCTGCACAATCCCCGGCCACAGAGACACACAGCTGACCCCATGGCGCCGCAGC
TCGTGGGCACAGTCAGCAGCCAGCTTGTACACGCAGCTTTGCCACACCATAGGGGACA
TTGAACATATACTGCAGGCTTCCTGGGGAGGAGATGACCACGATNAGCCCCTGGCCAGCT
GGTACCT

Sequence 1557

CTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGT
CCTGGTGCTGCGGCCACACCACCTGGGGTGCTCATTGACAGAGCTGCCATAATGAATTT
GAAAGGACGGGAATCACCGAGGGAAGCTGGGGCTCCCTGCCACAGGAGAGGATCCCCG
TTCTTCAAGCTTCTGCTCAGTGTCTACTAACGACCGACATTTGCTAATGTAAATAATA
GTAAATTATTGAGAATTCTAATTTTACACAGTCTGTTTTTAATCTATTTTAATTTAA
TAAATCTATGACT

Sequence 1558

CCGCGGTGGCGGCCGGGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCT
GAGACTTCTGGAGAGACCATCAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAAC
CAATGAGGAAGGAGAGAATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAAAATACG

TABLE 1
257/467

ACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTCCTCTGAGCGCTGTCTATCGCA
TCTGCCTGGGCAAGTTCACCTTCCCTGGGATGTCCCTGGACAAGAGACAAGGAGAAGGCC
TTAGGATCTACTGGGGGAGTCCGGAGGAGCAGTCCCTTCTGTCCCGCTGGAACCCATGGT
CCACTGAAGTTCCTTATGCTACTTTCACTGAGCATCCTATGAAATACACCAGTGAGAAAT
TCCTTGAAATTTGCAAGTTGTCTGGGTTTCATG

Sequence 1559

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCCAGGCACAGCTAA
TTTTACTTTTTATTTTCTTGAGACAGGTCTCACTCTGTTGCCAGGCTGGTCTTGAAGTC
TTGGCCTCAAGTGATCCTCCAGCCATGAGCCACTGTAAATGTCTGGGAATGCCAACTTGA
AGCCCAGCTGGTCAGAAGTTCTAGAGGCCAGACTTGCAACTGGTGTCTGAAGGGATGGC
AGTCTTGGGGACTGAGCCCTCAACCTGAGGGATCTGATGCTATTTCCAGGCAGATAGTGT
CAGAATTAATTGGAGGATACCGCAGTTAGTGTCTGCTGCAGAACTGATTGCTTGCTTGC
TGGTAGGGGGGAAATCCCCACATATTGGGGGGGTATTTGAAGTCTTTTGGTGTGACTCT
TACTGNGTTTNGTTGGTTTTTCATGTGAAGAGCAGAGGGGAAAAGCAAGGGA

Sequence 1560

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTACTGACCCAACAAGTGTGACTA
GCTGGCCACGTCAATCAGGGCTGGTGTGGCATTATGTGTGTGTGTGTGTGTGTGTGT
TTCTGTTTGGCCAGCAGTGCATTGTGGGTTCCAAGAGTGGGTAGTGTGTGTATGTGTGT
GTGTGAGAGGGAGACCTGGCAGGCACCTNTTGTAGAGTAGCTGTGGTCAGAGCTGTTTGG
TCAGTGCATTATGTTGAATGAGGTCCAGGAACCCAGAGCCACCCAGCAGACACCACTGTG
GCTTGCCAGCTGCCAAGATGGAGAAGCATGTGCCCTGTAGAGCGTCTTCCAGAACCCAG
ACCCCGAGCCACTCGCTTCTCTGTGCTGNGACAACATTGGTGCCAGGGGAGATNGTTNT
TTTTTCAAAGGGGACCTACTGTAGCCCCTTTAAAT

Sequence 1561

CCACTCACTATAGGGCTGAATTGGAGCTCCCCGCGGTGGCGGCCGGAAGAGCAACCGAGA
TGAAGGTGAAGATGCTGAGCCGGAATCCGGACAATTATGTCCGCGAAACCAAGTTGGACT
TACAGAGAGTTCCAAGAACTATGATCCTGCTTTACATCCTTTTGAAGTCCCACTGAGAA
TATGTAAGAGCTTTAAATGCTACCAAAGTGAACGAGTATTTGCAAAACCATTCCTTGCT
TCGCTGGATGGTCACCGTGATGGAGTCAATTGCTTGGCAAAGCATCCAGAGAAGCTGGCT
ACTGTCCTTTCTGGGCGTGTGATGGAGAGGTTAGAATTTGGAATCTAACTCAGCGGAAT
TGTATCCGTTACCT

Sequence 1562

GGGCGNGTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTTCTGCCTTCCCCATATA
CTGAAGTTTGAGAGGCTGGGAAGGTGCGGAATGGGAAAAGGAGCAGCTGCTTATGTTGAG
TTTAACTTCTCTGGGTTTCTCCATCTAGGTCTTGAGTTCATTCTCTTCTGTCCTTTTG
GCTTCTTGTTTAACCTGGTCCCTGTTTCAGGAGAGAAGCCTCATCAGTGCCAAGTCTGT
GGGGAAGACCTTCTCTCAGAGTGGAAGCAGGAATGTGCATATGAGAAAGCATCACCTGCA
GCTGGGAGCAGCTTGGGAGTCAAGAGCAGGAGCAAAGTCTGAGCCACTAATGGGGCAGT
AGTTTGCTTG

Sequence 1563

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCTTCGTAAACCATGGAGAGC
CAGCCCAATGCACAGCAGTGGATATCATCTTCTCAGAGTCCAGTATCACAGAATCACGA
CTTTGTCCAGCTGCAGGTGCCTGCAGGTCACTGGCTAACTACTTTGTGATGGGCTCTT
CTTCTGAGGTTCTGCCAAGTGTCTACTACATAGGGTTGATCATCCTGTTGAGGAAATA
TTTCTTTCAATTGCTCTGAGCTTAATATTGTAATTTGATTTGATCTGCTGGGTCTTTGG
AGTCAGGACTGGTTTTATCAGCAGTTTATCTTCTGAGGTCTGGTATGTAGTTTGCTGGC
CCACAGAACCTTCAGTGTATTACAGCCTCAATGCCATAAGGAACTCTTTTAGAAGTT
CTGACAGCTGGTCATGTAGGTATAAGACAGGTGCCTTATCACTGTGGATTTCATTTCTTG

Sequence 1564

CCGCGGTGGCGGCCGAGGTACAAATTGTCGTTTTTATTCCTCTTATTGGGATATCATTTT
AAAACTTTATTGGGTTTTTATTGTTGTTGTTTATCCCTAACCTACAAAGAGCCTTCC

TABLE 1
258/467

TATCCCCCTCGCTGTTGGAGCAAACCTTATACCTTACTTCCAGCAAGCAAAGTGCTTTGA
CTTCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAACCTGTTCTTTGCATTTTGCCG
CTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGATCAA
ATATAGAAAGTTGATATTCAACCTCACAAGGGCTCTCAAAGTATAATCTTTCTATAGCCA
ACTGCTAATGCAAATTAACATATTTTCAATTTAACATGATTTCAAATCAGTTTTTCAT
ACTACCTTTTGCTGGAAGAACTAAAAATATAGCAAATGCAGAACCACAAACAATTGAA
TGGGGTAGAAACATTGTAAATATTTACTCTTTGCAAACCTGGTGGGTATTTTATTTTGG
CTTCATTTCAATCATTGAAGGTATTTCTATTGGAAATGTACCTGCCCNNGCCGGCCGC
TCTAGAACTAGTGAATCCCCNNGC

Sequence 1565

ACTACTATAGGGGCGAATTGGAGCTCCACCCGCGGTGGCGGCCGCCGGGCAGGTACTTT
TTGGTGTTTTTTGGAAAAGTTACATTTAGATCTATTCTGAAGCTGTTCATTTTAACAAA
TAAAATGTTACAGGTTTACATGATTTATTCGCAAAAAAAAAAAAAAAAAAAGTACTGT
CTGTGAACAGCAAGGAAATATGATTACACCTAAGAGATGAAATTGGCATAGGCGAGAAG
TCAGAAAAATAATCTATACAGCTTGCATGGTTGGGGAGTTAGGAGAGGCCAAGGCCACGT
GCACGTAGAGCAAGAGGTAGAAGAGGCCCGGGGGCTAGAGCGCACCTGGTGGATAGTGT
GAGAATTTCACTGGCTCAAGCCTTGAAGACCACCCAGGGGTGCGCCTTAGCAACGCA
CTTATGCAAGACCCCAACAACCTGGCCCTTGAAGGAGCTTTTCACTGGTGGGATGTGGCC
CTGCTTGATTGACAACCATAGTTTTAACAAGCCANCATTAAATCCACAAGTCTTTGCCA
AAGCACTTTAAGCCTNTTGACATTTATTGGAATTAATTTACCTGCAAGGAAAGTTCATAT
ATCTAGCTTTGGTAACCTACATTCGGGAAAAATGTTTCCATGANATAACTAAANCCCC
ATGAATGATACAATCTTGACAAAACCCAAAGNNGGCATAATTAGCATAAACTCCAAAT

Sequence 1566

CCCGCGTCCGGCATCTCCCAACGTGACTGACCCGCGGACCACGACCCGCAAAGTGGTCCC
GACGACGCTCACCACCACCAAGCCGCCAGAAACCTGTGAGAGCTTCAACAGCTGTGTTTC
CTGTGTCAACGCCACCTTGACTAATAATATTACCTGCGTCTGGCTAGATTGCCATGAAGC
AAATAAGACCTATTGTTCAAGTGAATTAGTAAGTAATTGTACCCAGAAGACCAGTACTGA
CTCTGTTCTGTAATACCTACCACCCAGTGCCAACCAATTCTACAGCTAAGCCTACAAC
TCGGCCTTCCTCTCCTACACCTACTCCCTCAGTTGTCACATCAGCAGGTGCAACAAATAC
CACTGTGACTCCAACCTCACAGCCTGAGCGGAAGTCCACCTTTGATGCAGCCAGCTTCAT
TGGAGGAATCGTNCCTTGCTTGGGTGTGCAGGCTGTAATTTCTTTCTCTATAAATTCTG
CAAATCTAAAAGAACG

Sequence 1567

TCGCCNCGCGTCCGGGCAACTGCAGTTGGAAAAAAGATTCAACTTCAAAGCAGAGGATT
TTTGATGAAGAACCAGCTAATGGAGTGAAGATAGAAAGGTTACAAGGGATGATCCTTGG
TTATCTTCATGTGAAGAAGTGGATGATTGTAAAGACCAGTTGGAGAAGCAACAGGAAAA
CAAGAGATACTTTTGCAGGAAGTGGCATTCACTCAAAGGAAAGCAGTTATTCATGAGAGA
GTCTGCAAAAGTGATGAAACTGGGGAGAAGAGTGGTCTGAATTCCAGTCTATTTTCATCC
CCAGTTATACCCATAAGAAACCATTTTCATAAACATGTATCACATGCTAAAAATGGCAT
CTTAATGCTGCTGTAAACAGTCATCAGAAGATTAATGAGAATGAGACACTATATGAAAT
AATGGAATGTGGAAACCCCTCAGAGCATTACCTTATTAGTTTACAAGAACCTCAAA
CA

Sequence 1568

GCTCCATGCCCTTCTCTGAGACGGGGACCAGGGGATGGCAGNCATGCACCTGACAGCCTG
GCCCNAGAAGTCGGTGACCTTTGAGGACGTGGCTGTGTACTTCACCCAGGCGGAATGGGA
TGGCCTGTCCCCTGCACANAGGACCCTGTACAGGGATGNGATGCTGGAGAATTATGGGAA
TGTGGCCTCCCTGGGATTTCACTTCTCAAACCTGCTGTGATCTCAAACTGGAGGGAGG
AAGTGAGCTGGG

Sequence 1569

CGCGTCCGTTTTCTCCTGGCACCTGTATTCATGGCCTTGGCGTTCTGCCTCTGCATGGCT
GAAGCCATCCTACTCTTCTCACCTGAACACTCCCTGTTCTTCTGCTCCCGAAAAGCA

TABLE 1
259/467

CGGATCCGGCTCCACTGGGCAGGGCAGACCCTAGCCATCCTCTGTGCAGCTCTGGGCCTG
GGCTTCATCATCTCCAGCAGGACCCGAGTGAGCTGCCTCATCTGGTGTCTGGCACAGC
TGGGTGGGAGCCCTGACACTGCTGGCCACTGCTGTCCAGGCACTGTGTGGGCTCTGCCTC
CTTTGTCCCCGGGCAGCCAGGGTCTCAAGGGTGGCTCGCCTCAAGCTCTACCATCTGACA
TGTGGACTGGGTGGTCTACCTGATGGCTACAGTAACGGTGCTTCTGGGCATGTACTCAGT
ATGGTTCCAGGCCCAGATCAAAGGTGCGGCCTGGTACCTGTGCCTG

Sequence 1570

CGTCCGCTAAGTTCCAATATTGAAAAATCTGTAAAAGACCTCCAGCGCTGCACAGTGTCT
CTTGACCGGTATCGAGTTGTAGTTAAAGAAGAGATGGATGCCTCCATTAAGAAAATGAAA
CAAGCCTTTGCTGAATTGGAGAGCTGTTTAATGGATCGAGAAGTGGCGTTGCTTGCTGAA
ATGGACAAAGTGAAAGCTGAAGCAATGGAAATTTTGTCTAGCCGACAAAAGAAGGCTGAA
CTTCTAAAGAAGATGACTCATGTGGCTGTTCAAATGTCAGAGCAGCAA

Sequence 1571

GCAGCCGGCCATGCAGGCCGTATCCGAAGTACATGGACCAAATTATCACCTCCAAGGA
GCACCTTGCCAGCAAGATCCGAGCCTTCATCCTCCCCAAGGCAGAGGTGTGCGTGCGGAA
CCATGTCCAGCCCTACATCCCATCCATCCTGGAGGCCCTGATGGTCCCCACCAGCCAGGG
CTTCACTGAGGTGCGAGATGTCTTCTCAAGGAGGTACGGACATGAACCTGAACGTCTAT
CAACGAGGGCCGGCATTGACAAGCTGGGCGAGTACATGGAGAAGCTGTCCCGGCTTGCGC
TACCACCCCTGAAGATGCAGAGCTGCTATGAGAAGATTGGAGTTCGCTGCGACTGGACG
GGCTGCAGC

Sequence 1572

CCGAACAANGTGGCCACCCAGGTTTTTAACCCAAGTCTAGTGGTCATCCTATTCTTTCCA
CACCAACATGCCAAAAGCCTTACCTNGAAAGAAAATATAATTTGCAAGAAGCATCACAGT
GCCGGGGTCTATATTCTCGATCAGGTTGNTAATTTTCCCATGGGTTTTTTGACTGATAAA
GNCATTGATCTGCTTCTGAGCCATTTCCAAATTCTGAAAGTTGGTAAGGATGGTTTCGGN
ACTGTAAAAGTTCTTGGCATCTTCC

Sequence 1573

CGCGTCCNNGNCGGAGAAGACAGTAGGGATACTGGATATGGGAGGAGCCTCTCTCCAAAT
TGCTTATGAAGTTCTACCTCAACCTCTGTCTTCTGCAAAGCAGGAAGAAGCTGCCAA
GATCCTGCTGGCTGAGTTCAACCTGGGCTGTGATGTGCAACACACTGAACACGTGTACAG
GGTTTATGTCACAACCTTTTCTGGGTTTTCGGAGGCAACTTTGCCCGGCAGCGCTACGAAGA
CCTTGTTCTGAATGAACTCTTAACAAAAACAGATTGCTTGGTCAGAAGACAGGTCTGAG
TCCCGACAATCCATTTCTGGATCCCTGCCTGCCAGTGGGACTCACAGATGTGGT

Sequence 1574

CGCCGTCCNGTTTACTTGGAGTGTCCAAAAGTCAAGCAGTAGAGAAATAAGACAAGCTT
TCAAGANNNTGGCATTGAAGTTACATCCTGATAAAAACCCGAATAACCCAAATGCACATG
GCGATTTTTTAAAAATAAATAGAGCATATGAAGTACTCAAAGATGAAGATCTACGGAAAA
AGTATGACAAATATGGAGAAAAGGGACTTGAGGATAATCAAGGTGGCCNGTATGAAAGCT
GGAATATTATCGTTATGATTTTGGTATTTATGATGATGATCCTGAAATCATAACATTGG
AAAGAAGAGAATTTGATGCTGCTGTTAATTCTGGAGAACTGTGGTTTGTAATTTTTTAC

Sequence 1575

GAGGCGCTCAACCTACCGAGGCGCCACAACTGTCCGGCCTGCTGGGCTTGTCCCTGCG
CTACAACAGCCTCTCGGAGCTGCGCGCCGGCCAGTTCACGGGGTTAATGCAGCTCACGTG
GCTCTATCTGGATCACAATCACATCTGCTCCGTGCAGGGGGACGCCTTTCAGAACTGCG
CCGAGTTAAGGAACTCACGCTGAGTTCCAACAGATCACCCAACTGCCCAACACCACCTT
CCGCCCCATGCCAACCTGCGCAGCGTGACCTCTCGTACAACAAGCTGCAGGCGCTCGC
GCCCCACCTCTTCCACGGGCTGCGGAAGCTCACCACGCTGCATATGCGGGCCAACGCCAT
CCAGTTTGTGCCCGTGCGCATCTTCCAGGACTGCCGCAGCCTTCAAGTTTCTCGACATCG
GATACAATCAAGC

Sequence 1576

GACCACGCGTCCGCGCACCGCTTCATTGAGGCTGCAAGAGCACACGGGCACCCACGTGCT

TABLE 1
260/467

GGTCCACTGCAAGATGGGCGTCAGCCGCTCAGCGGCCACAGTGCTGGCCTATGCCATGAA
GCAGTACGAATGCAGCCTGGAGCAGGCCCTGCGCCACGTGCAGGAGCTCCGGCCCATCGC
CCGCCCCAACCTGGCTTCTGCGCCAGCTGCAGATCTACCAGGGCATCCTGACGGCCAG
CCGCCAGAGCCATGTCTGGGAGCAGAAAGTGGGTGGGGGTCTCCCAGAGGAGCACCCAG
CCCTGAAGTCTCTACACCATTCACCTCTTCCGCCAGAACCTGAGGG

Sequence 1577

CTACACTCAACTTCACCATCTCCAATCTCCAGTATTCACCAGATATGGGCAAGGGCTCAG
CTACATTCAACTCCACCGAGGGGGTCTTCAGCACCTGCTCAGACCCTTGTTCCAGAAGA
GCAGCATGGGCCCCCTTCTACTTGGGTTGCCAACTGATCTCCCTCAGGCCTGAGAAGGATG
GGCAGCCCACTGGTGTGGACACCACCTGCACCTACCACCCTGACCCTGTGGGCCCCGGGG
TGGACATACAGCAGCTTTACTGGGAGCTGAGTCAGCTGACCCATGGTGTCACCCCAAGTGG
GCTTCTATGTCTGGACAGGGATAGCCTCTTCATCAATGGCTATGCACCCCAAGATTTAT
CAATCCGGGGCGAGTACCAGATAAATTTCCACATTGTCAACTGGAACCTCAGTAATCCAG
ACCCACATNCTCAGAGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCAACACAC
TTTTACAAAGGCAGTCAAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGAC
GATGGACTTCCGTGTTGGTCACTGTCAANGCATTGGTCTTCTCAATTG

Sequence 1578

GCGGCCGCGGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATTGNNNTNCAAT
AGNTTATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGCTTCACAGC
TTCACTTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATGGCCTACCAAGA
CGATGATGTTTAGCCGGGCGGAGAGGCTGTACCT

Sequence 1579

CTCCCCGCGGTGGCGGCCGCCGGGCGAGGTACCTAACCTACCTTTAAGACTGGGATNTCT
ATTGNTAACAATAGCTAATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGG
AGCTTCACAGCTTCACTTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATG
GCCTACCAAGACGATGATGTTTAGCCGGGCGGAGAGGCTGTACCT

Sequence 1580

CTCCCCGCGGTGGCGGCCGAGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGT
AGGCCNTTNCCTACCAACTAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGA
AGCTCCTTTCTATTACTCATCATGCGATAAATACTATATCCGGTATTAGCTATTGTTTC
CAATAGTTATCCAGTCTTAAAGGTAGGTTAGGTACCTGCCCG

Sequence 1581

TTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTAACCTACCTTTAAGACTGGGATAACTA
TTGTTNAACAATNNCTAATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGG
AGCTTCACAGCTTCACTTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATG
GCCTACCAAGACGATGATGTTTAGCCGGGCGGAGAGGCTGTACCTGCCCG

Sequence 1582

AGGTACAAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGNTAGGCCNTTACCCTACCAA
CTAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGAAGCTCCTTTCTATTACTC
ATCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCAGTCT
TAAAGGTAGGTTAGGTACCTGCCCG

Sequence 1583

CCGCGGTGGCGGCCGAGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTTTTNGGC
CATTACCCTACCAACTAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGAAGCT
CCTTTCTATTACTCATCATGCGATAAATACTATATCCGGTATTAGCTATTGTTTCCAAT
AGTTATCCAGTCTTAAAGGTAGGTTAGGTACCTGCCCG

Sequence 1584

TCTTCGANACGNNTTCGGGCGGCTTTTCCCCGGGCAAGGCTTCTAAATCGGGGGGGCTTC
CTTTAGGGGGTCCGAATTTAAGTGGCNTATAACGGGCANCCTTCGAACCCCCAAAAA
AACTTG

Sequence 1585

TABLE 1
261/467

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTNNGTAGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCCG

Sequence 1586

[illegible]

Sequence 1587

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCGG

Sequence 1588

CGGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATTGGAAACAATAGCTAATAC
CGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGCTTCACAGCTTCACTTAAA
AATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATGGCCTACCAAGACGATGATGTT
TAGCCGGGCCGAGAGGCTGTACCT

Sequence 1589

TACNCGCGTCCGGGGCCCCGGATGCTGGGGGCCACCAGGGCCCCGGGATGTGCTGGTCT
TCATGGATGCCCACTGCGAGTGCCACCCAGGTTGGCTGGAGCCCCTCCTCAGCAGAATAG
CTGGTGACAGGAGCCGGGTGGTATCTCCGGTGATAGATGTGATTGACTGGAAGACTTTCC
GGTATTACCCCTCGAAGGACCTGCAGCGTGCGGTGTTGGAAGCTGGAAGCTGGATTTCATT
GGGAACCTTTGCCGGAGCATGTGAGGAAGGCCCTCCAGTCCCCAATAAGCCCCATCAGGA
GCCCTGTGGTGCCCGGAGAGGTGGTGCCATGGACAGACATTACTTCCAAAACACTGGAG
CGTATGACCCTCTTATGTCGCTGCGGGGTGGTGAAAACCTCGAACTGTCTTTCAAGGCCCT
GGCTCTGCGGTGGCTCCGTTGAAATCCTTCCCTGCTCTCGGGTAGGGCACATCTACCGAA
ATCAGGATGCCCCGTCCCCGTTTGACCAGGAGGCCACCTTGAGGAACAAGGTTTCGCATTG
CTGAAGACCTGGCTTGGGGTCA

Sequence 1590

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTGATATCCACATATTTTGGAG
AAAAATCCCAAGCCAGGCCGAATGTGGATTGGAATAAAGACATAGGCAGTGTATACCACC
ATAGCAATAATGGTTAGTAAGATGGTGTTAAACATAGATCGCTCCCAGGGCTCTAAAAACA
GCACAGCAGCTAATGATTTGGTATTGATAGTAGAGCCAGGAGAAATATTCCTTCACACGC
CTCAAATCCATGGTTGGCTCCTTCAAGCTGCAGTAAGTTTGTCTAAGAAAGTCCAGGTC
TGGTTCTTCAGCCTTGCTCCTTC

Sequence 1591

CCCTTTCGAGCGGCCGCCCGGGCAGGTACATTTTGAATATCAATTTCTAAATATTTACCC
AAAAATGTATATTTAAAGTTTTAAACAACCTCTTTCAATCTTGAAAAAGTTCCCTCAT
TTTTCTTTTAAATCCCATAACAATCAATGGTCTTTTAAAATAGAATAAATATTTTT
TGTCATTATAAGAAGAATATGGATCTGGAAAAATCATTTGAATATTTTTCTTAAAAAT
AGATTTTGTTTTTTGTAAATTTGTTCCAGAAATAACCTCATCTAATAAAGTAACCTTGA

TABLE 1
262/467

CCACCGTAAGATTCATATAATCTAATCAAAGATCTACCAACTGGTTGTTTTACCCTGGAT
CCAGATTCACCAATTAACCTAAAATTTTTCCTTGTGGATCTAAAATTTTACCGTTATC
AACAGCTTTGACAACCCAAANTTATTGGAAAAATATTTTTTAAGCTTTGAACTTTAAAG
GGTGGGTAACTTGCATTA

Sequence 1592

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGG
GTTTCCCTGCTATGTTTTGTCACACATCATTGCTGGGAGAGTTCAAGTGCTATCCAAGTGA
CTCCCCGGGGAGAGGACAACCTGGAAATTTATGCCTGGTGTCTTCTGGACTCCGACCTAT
GCACCTTTTTCCTTGGATGATTTTAACCTGTCTCCTTTTGTGCAATGAACCATAACCAT
GAGTATATCAGCTTTTCTAATTTTGTGAAGTCCCTCAAGTGAATTATCAAACCTAAGGG
TAGTTTTGGGGACCCCATCACAGAAGAGGTCAAACAGGGGGCAGG

Sequence 1593

CCGCGGTGGCGGCCCGCCCGGGCAGGTCTCTGTCTAGTATACTCAAGGCAGCCTAGTAA
ATTATTATTTATCTATACAATACTGGAAAACTTGTAGACAAAAACATGACTTGAATTGC
TAAAAAAGAGGGAGAATGAAAACCTCCGGACGCGTGGGTCTGAAGCTT
GACCT

Sequence 1594

CCGCGGTGGCGGCCCGCCCGGGCAGGTAGGCTGTCTACACTGACATCATCCAGGGCAAGCT
GGACCAGCGAAACCAGCTGCTGGAAGTGGATTTCTGCATTGGCCGTGACATCCGAAAGAA
GGATATCAATAATATTGTCAAGACCCTGCATGAATGGTGTGATGGCTGTGAAGCAGTTCT
ACTGGGCATNGAGCAGCAAGTTCTGAGAGCCAACCAGTACCTT

Sequence 1595

CCGCGGTGGCGGCCCGCCCGGGCAGGTTTTTTTTTTTTTTTCTTTCTGTTTCTTGGACTA
GATAATCTGAAATCAACTGTCTTCAAGTTTGCAGACTCTTGTGCCAGCTAAAATGTTCTG
TTGAGCCCCAGAAGCTAATTTTCTTTTCAAGTTATTATGATTTTCAAGTTTGAATTTATT
TTTTAATATAATTTCTACCTCTTTTTATATTCTCCATTTGGTGAGACATTCACATACT
TTCTTCCAGTTTTTTTAGACGTAGTTTCTTGAAGTCTTTGAGCATATTTAAATAGTT
GATTTAAAGTATTTGTCTAGTTACTCCACCATCTGAGTTTCTCAGGGAAAATTTCTATT
GCCTCCTTTTTCTGTGTGTGGTCCGNCCATACGGACGCGTGGGTCTGAAGACCT

Sequence 1596

ACTTNTNTTTTTTTTTTTTTTTTTTAAAGCGCCCGGCATTTTCTAAATAAAATCATTT
TATTTGGNAAAAGGGTTTTAACAGNTATACCTTTCTAGCTAAAAGAAAAGAAATAGCGGG
ATGTACCT

Sequence 1597

AGGTACGAAGAGAAAGGAATCAAAGCCTACTANCTCAAAAAATTGTCAAATTGCAAATGA
GGACATCTAGAGAGGAAGAAAGGAAAAAGGAACTAAAAACAGAAACAATTAACAGTAA
GTTCTTAAGTATCAATAATTATTTTAAAGTAAATAGATTAAATTATCTAATCAAAGAC
ATTGAATGGCTGAATGGATTAAAAACAAGATCAACTATACATTGCCCATCAGAGATTCA
TTTTAGCTTTAAGGATAAACTGGTTGAAAGTAAAAAGTCAAGGCTGGGCATGGTGG
CTCATGTCTATAATTCCAGCACTTTGGGAGGCCAAGGTGGGCAGATAATCTGAGGTGAGG
AGTTTGA

Sequence 1598

CCGGGCAGGTACCACCTGAAGACCCTCACACTCAACTTCACCATCTCCAATCTCCAGTAT
TCACCAGATATGGGCAAGGGCTCAGCTACATTCAACTCCACCGAGGGGGTCTTCAGCAC
CTGCTCAGACCCTTGTTCCAGAAGAGCAGCATGGGCCCTTCTACTTGGGTTGCCAACTG
ATCTCCCTCAGGCTGAGAAGGATGGGGCAGCCACTGGTGTGGACACCACCGGCACCTAC
CACCTGACCCTGTGGGCCCGGGCTGGACATACAGCAGCTTTACTGGGAGCTGAGTCAG
CTGACCCATGGTGTACCCCACTGGGCTTCTATGTCCTGGACAGGGATAGCCTCTTCATC
AATGGCTATGCACCCAGAAATTTAT

Sequence 1599

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACACAGGACCAATGCTGCC

TABLE 1
263/467

CATCCACATGGAATTTACAAACATTCTACAGCGCAAAAGGCTCCAGACTTTGATGTCAGT
GGATGATTCTGTGGAGAGGCTGTATAACATGCTCGTGGAGACGGGGGAGCTGGAGAATAC
TTACATCATTTACACCGCCGACCATGGTTACCATATTGGGCAGTTTGGACTGGTCAAGGG
GAAATCCATGCCATATGACTTTGATATTGTCGTGTCCTTTTTTTTATTCTGGTCCAAGTGT
AGAACCAGGATCAATAGTCCCACAGATCGTTCTCAACATTGACTTGGCCCCACGATCCT
GGATATTGCTGGGCTCGACACACCTCCTGATGTGGACGGCAAGTCTGTCTCAAACCTTCT
GGACCCAGAAAAGCCAG

Sequence 1600

TCNCCGCGGTGGCGGCCCGCCGGGCAGGTACGTTCACTGTCTCATATAATCNCAGCCTCC
TGTGTGATAGCTGGTGTCTCATCTCCACTTACAGATGAGGAAACTGAGGATAAGCAGGGTTG
AATAACTTGCTCGAGATCACAGAGCCACGGGTGGNGAAACAGGATACAAACCTGGTTCTG
TTTGACTCTAAGACCATTATNTTTCTCTGAAACTCAGTATTGCACAGTGTAGAAATGC
AGTTTTTAAGACCTCCCAAAGTGACGTGCTGNGTCACTGCCCATCATTAGCTANATTGAG
TAAATTGCTGCTTAGCCCCANTTGTGTTTGACAGAATCAATAGCCCTTGCTGAGGGGCCAN
CAGCCTACGGACACAGGAGCATGCTTCATGGGCAAGACCACCATGCACACTCAGAGGGGA
AGCCACAAGGCAACCTCCACGCCACTTAAGATTTGTAGGGCTCTGAACACATCACCAGAT
ACAGACCACCTACTTATTTTTNCACTGTAATANCAAAGGCAGGAATCTTTTTNCTGTAG
GGTAAAGTTTGGGGG

Sequence 1601

GGCAGGTACAAGGCCCCAAAGAGGAGGAATTCCTTGTAGAGGAGCTTGTAGATGCTTCCC
CTCCAGCGGAGAAGCAGGCCAGAGAAACCTCCGAAGCGGGCCTCCGCCACTTTGAGAGTG
TATGAAACCGTCATGGTGCTGGGAGCCTGGGGCAGGAGGTCACAAGAGTTGCCCCAGGG
CTGTGCTTTAGTTCTCCAGACAACCTCCCTTCCACTCTGGTCTCCACACCCCAGCCTTCA
CCCTGCGTCAAGTGGACAAG

Sequence 1602

AGGTACCACTGGGGACTTCTGAAAGAACNNTACTNGTGTCACTGGAAAAGCTGGCATT
GGGAAATGCTGGTCTCTCTCAGTCCAGGAGTCAAGGAATATGTTGACTCTCTCTTAATTT
TTGTAGTCTCAGAGGAAACAGACATTGATGTGGAACAGTTGTATGCCCCATGGTGGAGG
TGGTATCCATNGGAGCTGTGGCCTTGGTTTTTCTGAGTCAGCTAGGACAGAGGATTGTG
ACCCATGTCCAGAACTGGTGGTTTCCACATTAGTCGCTGCTGTGCTTGTGGAAGGATGCA
TGGCTTCTATAGCTGTGGTGTCTTCATCTGTTGTCAGTATCTCATGTGAGGNACCTGCCC
G

Sequence 1603

CCGGGCAGGTACTGTGATATCCACATATTTTTGAGAAAAATTCCCAAGCCAGGCGAATGT
GGATTGGAATAAAGACATAGGCAGTGTATACCACCATAGCAATAATGGTTAGTAAGATGG
TGTTAAACATAGATCGCTCCCAGGGCTCTAAACAGCACAGCAGCTAATGATTTGGTATT
GATAGTAGAGCCAGGAGAAATATTCCTTACACGCCTCAAATCCATGGTTGGCTCCTTCA
GGCTGCAGTAAGTTTGTCTTAAGAAAGTCCAGGTCTGGTTCTTCAGCCTTGCTCCTTCGC
GAAATGATCCTGTGTGGGTTAGTTCTCCTCTCTGGGTTGCTGTTTCCTCA

Sequence 1604

AGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACCACTGAAGGCCCTCACACTC
AACTTACCATCTCCAATCTCCAGTATTCACCAGATATGGGCAAGGGCTCAGCTACATTC
AACTCCACCGAGGGGGTCCCTTCAGCACCTGCTCAGACCTTGTTCAGAAGAGCAGCATG
GGCCCCCTTCTACTTGGGTTGCCAACTGATCTCCCTCAGGCCTGAGAAGGATGGGGCAGCC
ACTGGTGTGGACACCACCTGCACCTACCACCCTGACCCTGTGGGCCCCGGGCTGGACATA
CAGCAGCTTTACTGGGAGCTGAGTCAGCTGACCATGGGTGTCACCAACTGGGCTTCTA
TTGTCCTGGACAGGGATAGCCTCTTCATCAATGGCTATGCACCCCAAAATTTATCAATCC
GGGGGCGAGGTACCTGCCCCGGGCGGGCCGCTTAAACTAGGNGGGATCCCCCNGGCTTG
CAGGAATTTTGATATTCAAGCTTATCGATACCCGTCCNACCTTCGAGGGGGGGG

Sequence 1605

CCGGGCAGGTACCACNTGAAGACCCTCACACTCAACTTCACCATCTCCAATCTCCAGTAT

TABLE 1
264/467

TCACCAGATATGGGCAAGGGCTCAGCTACATTCAACTCCACCGAGGGGGTCTTCAGCAC
CTGCTCAGACCCTTGTTCCAGAAGAGCAGCATGGGCCCTTCTACTTGGGTTGCCAACTG
ATCTCCCTCAGGCCTGAGAAGGATGGGGCAGCCACTGGTGTGGACACCACCTGCACCTAC
CACCTGACCCTGTGGGCCCGGGCTGGACATAACAACAGCTTTACTGGGAGCTGAGTCAG
CTGACCCATGGTGTACCCAACTGGGCTTCTATGTCCTGGACAGGGATAGCCTCTTCATC
AATGGCTATGCACCCCAAGATTTATCAATCCGGGGCGAGTACCT

Sequence 1606

CGGCCGCCCGGGCAGGAACNNNNTTTTTTGGGGGGGGGAAAACCNAGACGGAGCCNCGCN
CAANGGCCCAGGCGGGAGTGNAAGGGCACCAGGGGGGGCNCACCACAAANACCGCCGCC
GGGNGAAAGCCACNCCCGGCCNAGCCNCCGGAGNAACGGGGGGAACAGGGGCAGGCCA
TNTTTTTTTTTGNGGGGGGNGNANGGGGNGGANNCCAGGNAANANCANGCNGGCCA
GGGGGGGGGGGAACNCCNGACCTNATGANGCACCCGCCNNGGNCNCCAAAANGCGGGGA
NNANAGGGGNGAGCCACCGNGCCNAGCNGACGG

Sequence 1607

CGAGTTACCAGAAGGAGAGATCACCACCATCGAGATCCACCGCACTAACCCGTACATCCA
GTTAGGAATCAGCATCGTTGGCGGCAATGAGACGCCACTGATCAACATCGTNATTCAGGA
AGTNTACCGGGATGGGGCCATCGCCAGAGATGGAAGGCTCCTTGCCGGAGACCAGATTCT
TNAGGTCAACAACTGTGATATCATGCAACGTGTCCCATAACTACGCCCCGGGCTGNCCTTT
CCCAGCCCTGCAGNACCCTGCACCTGACAGNGCTTCGGGAGCGGCNGCTTNGGCAGTCGT
GCAA

Sequence 1608

CGAGCCTTTAGATGGCGTCTCCTCAGGGGGGCCAGATTGCGATCGCGATGAGGCTTNGGA
ACCAGCTCCAGTCAGTGTACAAGATGGACCCGCTACGGAACGAGGAGGAGGTTTCGAGTGA
AGATCAAAGACTTGAATGAACACATTTGTTTGCTGCCTATGCGCCGGCTACTTNGNGGAT
GCCACCACCATCACAGAGTGTCTTCATACTTTCTGCAAGAGTTGTATTGTGAAGTACCTN
CAAAGTAGCAAGTACTGCCCCATGTGCAACATTAAGATCCACGAGACACAGCCACTGCTC
AACCTNAACTGGACCGGGTCATGCNGGACATCGTGTATAAGCTGGTGCCTGGCTT

Sequence 1609

GCGTCCGAGTCCCCCAGGAGAATGGTAGACACAGATGAGGAAATTGTGGAGATGGGCAC
AAACCGCAAGGTGAAGAAAACGAACAAACACCGAGTTGATACGGATAGTCCCCGTTCCCC
TGAGGGCCGACCCCGTGAATCCCGATGAGCGTCCAGTTGCGCCGGGCATCCTGGGCCTC
CCAGCGTCTTTCCCGGAGGTTTCATCGCCGCACGGCGGAAAGCGCTCTCGGTTCCGCTTTC
CGGCCCCAGCCTCCCGGGCGCCCTCGCGCGCGGCTAACGCTGGTCTCGGCCGGGCGCG
CTGACGTATCGTGCCTCAGAGTGAGCCCGGATGGGGCGGCGGGCTTCGGGAGCGCCCGG
GCTGATCCGAGCCGAGCGGGCCGTATCTNCTTGTGCGCGCCGCTGATTCCCGGCTCTGCG
GAGGCCTCTAGGCAGCCGCGCAGCTTNCGTGTTTGTGCGCCCGCACTGCGATTACAAC
CCTGAAGAATCTTCTATCCCTAT

Sequence 1610

CGCGTCCGGCGGGCGGGCTGAGGAGGGCCCGGCTGCGAGAGCCTCAGTGGGAGCCGGC
TCAGCCCTCGGCCACCATGTGCGCGCCGTGCGAGGAGGAGGAGTACTGCGCGGCTGGTGA
TGGAGGCGCAGCCGAGTGGCTGCGCGCCNAGGTGAAGCGGNTGTCCACGAGCTGGCCG
AGACCACNCGTGAGAAGATCCAGGCGGCCGAGTACGGGCTGCGGGTGCTCGAGGAGAAGC
ACCAGCTCAAGCTGCAGTTCGAGGAGCTCGAGGTGGACTATGAGGCTATCCGCAGCGAGA
TGGAGCANCTCAAGGAGGCCTTTGGACAAGCACACACAAACCACAAGAAGGTGG

Sequence 1611

CGCGTTCGAGTCTGGAGACGACGTTNCGAAATGGCACCTCGCAAAGGGGAACGGAAAAGA
AGGAATGAACAGGTCATCAGCCTTGACCTCAGGTGGCTGAAGGAGAGAATGTATTTGGN
GTCTGCCACATCTTTGCATTCTTCAATGATACCTTTGTCCATGTTANTGAACCTTTCTGGC
NAGTGAGTACTTCAGAAAGGCATNAAACANGCCTCAAAGGGAC

Sequence 1612

CCCCGCGTCCGCCACGCGTCCGGGCTCGGCTGCACCGGGGGGATCGCGCCTGGCAGACC

TABLE 1
265/467

CCAGACCGAGCAGAGGGCGACCCAGCGCGCTCGGGAGAGGCTGCACCGCCGCGCCCCCGCC
TAGCCCTTCCGGATCCTGCGCGCANAAAAGTTTCATTTGCTGTATGCCATCCTCGAGAGC
TGTCTAGGTTAACCGTTCGCACTCTGTGTATATAACCTCGACAGTCTTGGCACCTAACGT
GCTGTGCGTAGCTGCTCCTTTGGTTGAATCCCAGGCCCTTGTGGGGCACAAGGTGGCA
GGATGTCTCAGTGGTACGAACTTCAGCAGCTTGACTCAAAATTCCTGGAGCAGGTTCAAC
AGCTTTATGATGACAGTTTTNCATGGAAATNNGACAGTACCTGGCACAGTGGTTAGAAA
AGC

Sequence 1613

GTTNAGTNGAAGTTCTCTACCATGAATCAGTGAAGTAGAAAGATCTGATTTGGCCTGGG
ACCAGTGTTCAAGTTGGTTTGGTCTTTATTAATAATCACAATATTCGAAAACAAAAAA
CCTAGGAGATAAATGTAGAGGTATTGACTTTTCGTATCTTTATCTTCACACTGAAACAA
GAGCTATCCTATTTGATTATTAAGTGAGCTATGTGTTAAGTGCCAGGACATTTCTAGCT
TTTGTGAGAATGTGTCTACATATGAGTATAATAAACCCACATGTATACACAATTGTCTCT
TATGTACTCCTACCTGGCAGGAGTCTTTG

Sequence 1614

CGCGCCGGTGGTGCGATCTCGGCTACTGCAACTTCAGCCTCCTGGATTCAGGCAACACTC
CTGCCTCAGCCTCCACGTGGCTGGGATTACAGGTGCCTGCCCCATGGCTAATTTTTTG
TATTTTTGTAGAGATGGGGTTTACCATGTTGGCTGGGCTGGTCTCACTCTCCTGACCT
CAAGCAATCTGCCTGTCTCAGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCC
CCCAGCCTGAGCCTTTTTTTTTTCTAATGCATCCAAGGTTAAGGGGAAGACGCAATAA
CAGGACTATTCTAAAAGGAAACCTGTTTGAAGTCTGTGAGATCAAGTCATCAGTCTCAGT
ATTNCACAGGCACACCTTAATTTTCATTGGTAAAAGATATATATTTTGNCTATTTTTGN
GCTTTTGGGGGCCTATTTTGNCTTTTTACCTTTAATGNAAGAAGANCTTAATACCAAA
GTGGATTTTTTTACCA

Sequence 1615

TCGCCNCGCGTCCGTAGAACTCACACTAGACACACGCGAGTAGTCATACGTCTTCACACG
GTTTAGGAGCTACTGGACCAACATTCTGTTTTTGCTTTTGTTTTTTAAATAATTCTAG
TCTGGAGCTAACTGTGGAGCAGCCAAATAGTAGCTGGCATGTTGATTCAAACCATGGGCT
GAATTTGCTCATAGGCTGTGCATCAGACAAAAGCTTGAATATTTGTGTTGTATGCTTGT
CAACCCAGCGTGTGTGAGCATTTTTGTGGCTGTACAGAAAGTACACTTTTAAATTGT
CTCTTGCATCACTAAAATTTTTTAAATGAGCATAACAACGAAAGGCATCCAGCTGACT
TTTTGATTCCAAGATTATTGATTGGATTGACTTTTTTGCATTAAATTTTTCCAGCAAAA
TAAATCATATGGCGAGTCAGGGAATAAAAAAGTCAAAAAGGAAACAAATAGAAGCTTTTT
TTTTTAAAAA

Sequence 1616

GGNCGAGCGCGCCTTGCGGGGGCGGTATCCCGGCGCCCTAAGACCCACGACCNCNNGCA
CCGGCCGNTGCTGCNAGACCCCGGCCGNGTCGGTCCGATGTCGCCCCCGGNCCCGGCG
GAAACGCCTCCCTNCTGGCCAGGCTGTCNAGACCCGCTT

Sequence 1617

TCGCCACGCGTCCGTTNAGATGCAGAAATGAAAAAAAACACCTTTGTTTTATAAATATC
AAAGTACATGCTTAAAGCCAAGTTTTTATCTAGTTTATTCTAGTACTTAGCTTGCCTGGA
ATAGCTAATAAATTATTCATGTATGTGCTTTTGAAAAATCCAGAGCCCTATTTTTACACAC
TTGTGTGAAGTTGGCAAACATTTTGAAAAATGGAAAAAAGTTTCTAATAATTGGGAACAA
TTACATTAATTAATATTTTGTAAATATTGAAGCTTTTAGCCCTATGTCAATTTGTAGAT
TAAATAAATTAATTATAGGAAAGGAAGATAACAGTGAGAAACCAAACATTAC

Sequence 1618

CACGCGTCCGCCACGCGTCCGGCGCGGGCGGGAGCGGGCGGNGCGAGCGGGAGGCGGGCGG
CTCACAACCTGAAGCGCTGNGGCATGGNGCGCGCCTGCCTCCAGGCCGANNNGTACCTNAT
GTTCCGCTTCAACCTGCTNTTCTGGCTGGGAGGNNGTGTGNGGGCTGGNTGTCTGGCNTC
CTGGCTTGGGC

Sequence 1619

TABLE 1
266/467

TCGCCACGCGTCCGGACCTGGATGTGAGGGTGAANGGGCTGTGCTGCTGGGAGCCACATT
CCTCATTGACTACATGTTCTTTGAGAAGCGAGGAGGCAGCTGGGCCCTCTGCCATCACC
GTTAGAGGCCACCATGGTGTGAGGAGACCATCACCTCGACCAGAACTCCAGATGGTCACC
TGCCCTGGCCCCCTCCTCTGGGCAGCCCCCTTCTCCATGTACACTGCAGGGGACAGAAGG
GGGGCCCCATCCCTACCCTACTCCCTGGCCGCCTGCCCCCTGTGGTTCCCAAGGAAGGGGG
TATTGTATTGAGAGCCGCTCTCCTGCTACCTCCCACCACTGTCCAACAGTCCCTCGGCAC
ACAGGCATATTAAGCTTTCACACTTTTCCCATGCACTTTTTTCCACCCC

Sequence 1620

GGAGTCGACCNCGCGTCCGGGGGCTTGCTGGGATCATGGCGGAGAATCACTGCGAGCTCC
TGTCGCCGGCCCCGGGGCGGCATCGGGGCGGGGCTGGGGGGCGGCCTGTGCCGCCGCTGCA
GCGCTGGGCTCGGCGCCCTGGCCCAGCGCCCTGGCAGCGTGTCCAAGTGGGTCCGACTCA
ACGTCGGCGGCACCTACTTCTCACCACCTCGGCAGACCCTGTGCCGGGACCCGAAATCCT
TCCTGTACCGCTTATGCCAGGCCGATCCCGACCTGGACTCAGACAAGGATGAAACAGGCG
CCTATTTAATCGACAGAGACCCACCTACTTTGGGCCTGTGCTGAACTACCTGAGACACG
GCAAGCTGGTGATTAACAAAGACCTCNCGGAGGAAGGG

Sequence 1621

GTCGCCCCGCGTCCGGGGCCCCGCGGGCCTCGCCTCCGCCCTCCGCCACCTCGAGCTGCGG
TAGCAGCGACTCATGAGAGCGCGGCCGAGGACAGATTTGATAATGGGCTGCATTAAG
TAAAGAAAACAAAAGTCCAGCCATTAAATACAGACCTGAAAATACTCCAGAGCCTGTGAG
TACAAGTGTGAGCCATTATGGAGCAGAACCCACTACAGTGTACCATGTCCGTCATCTTC
AGCAAAGGGAACAGCAGTTAATTTACAGCAGTCTTTCCATGACACCATTTGGAGGATCCTC
AGGGGTAACGCCTTTTGGGAGGTGCATCTTCCTCATTTTCAGTGGTGCCAAGTTCATATC
CTGCTGGTTTAAACAGGGNNGNGGTACTATATTTGNGGCCTTATATGATTATGAAGCTAG
AACTCCAGAAAGACCTTTCATTTAAGAAGGGTGAAAGATTTCAAATAATTAACAATACNG
AAGGAGATTGGTGG

Sequence 1622

TTCCGGGAGTCGCCCCGCGTCCGCTTTTAAAAAGGCCAATATACCTATCACACTTTGGAA
GTAAAAATACACACTTTCTGTGTACCTAAAAAATCGTTGAAAATCAAGGCCAAAG
GTAGTGCAATTTTTTCAATTAAGATTTAAAAAAGGGAATGATAGTCTTTGAAAGAAAAAC
AGTAGGCATCCAGCACTGGACAAAACATGGGTATCAAAGATGAATAATCTTTGGAGATTC
TGGCAGTGTTTTCCAGAACAAAGTCAAGTGGAAAGTGGAGAAATTATCTGTATAATTTTG
GACACATACAATGGCAGTTTATCAAAGGGTTTTGTTCTGTGGCCTGAATTTACTGGGGTC
CTACCTACACATTGAACATGTTTGGCTGGCTTTTTTTTTTTTTTCAACTTGCCAGTTT
CACTTTACATGGTTAGTAATAAATGGTTTCCACGGGGTGAGTTGGGATAAAATTNTTAA
AACATNTTAAATTCCA

Sequence 1623

GGAGTCGACCNCGCGTCCGAGCCGGGCGGGGCGATGTGGAGCGCGGGCCGCGGCGGGG
TGCTGGCCGGTGCTGTTGGGGCTGCTGCTGGCGCTGTTAGTGCCGGGCGGTGGTGCCGC
CAAGACCGGTGCGGAGCTCGTGACCTGCGGGTCCGCTGCTGAAGCTGCTCAATACGCACCA
CCGCGTGCGGCTGCACTCGCACGACATCAAATACGGATCCGGCAGCGGCCAGCAATCGGT
GACCGGCGTAGAGGCCGTGCGACGACGCCAATAGCTACTGGCGGATCCGCGGCGGCTCGG
AGGGCCGGGTGCCCGCGCGGGTCC

Sequence 1624

CGCGTCCGGGGCAGCCGCGCCCGCGGAGTTTTCCGCCCGGCGCTGACGGCTGCTGCGCCC
GCGGCTCCCCAGTGCCCCGAGTGCCCCGCGGGCCCCGCGAGCGGGAGTGGGACCCAGCCC
CTAGGCAGAAACCCAGGCGCCGCGCCCGGACGCCCGCGGAGAGGCCACTCCCGCCCACG
TCCCATTTGCCCCCTCGCGTCCGGAGTCCCCCTGGCCAGATCTAACCATGAGCTACCCGT
GCTATCCCCCGCCCCAGGTGGCTACCCACAGCTGCACCAGGTGGGTGGTCCCTGGGGG
AGGTGCTGCCTACCCTCCTCCGCCAGCATGCCCCCATCGGGCTGGATTAACGTGGCCA
CCTATGCGGGGGCAAGTTCAACCAGGGACTATCTTCTCGGGAATGGCGGCCAACATTGTC
TGGGGACATTTGGAGGGAGCCAACATGCCCAAACCTGGACCCTGGGGCCCCCTGGGGGCTG

TABLE 1
267/467

Sequence 1625

CACGCGTCCGGCGCCGCTCCCGCATCTGCACCCGCAGCCCGGCGGCCTCCCGGCGGGAGC
GAGCAGATCCAGTCCGGCCCGCAGCGCAACTCGGTCCAGTCGGGGCGGCGGCTGCGGGCG
CAGAGCGGAGATGCAGCGGCTTGGGGCCACCCTGCTGTGCCTGCTGCTGGCGGCGGCGGT
CCCCACGGCCCCCGCGCCGCTCCGACGGCGACCTCGGCTCCAGTCAAGCCCGGCCCGGC
TCTCAGCTACCCGCAGGAGGAGGCCACCCTCAATGAAGATGTTCCGCGAGGTTGAGGAAC
TGATGGAGGACACGCAGCACAAATTGCGCGCGCGGTGGAAGAGATGGAGGCAGAAGAAGC
TGCTGCTAAAGCATCATCAAGAAGTGGAACCTGGCAAACCTTAC

Sequence 1626

CCACGCGTCCGGCCGGGGGGTGCCCCCGGGACGTAGCGCCCGGAGAGGAAGCGGCCAAAG
GGGACCATGCGGCGCCTGACTCGTCGGCTGGTTCTGCCAGTCTTCGGGGTGCTCTGGATC
ACGGTGCTGCTGTTCTTCTGGGTAACCAAGAGGAAGTTGGAGGTGCCCGACGGGACCTGA
AGTGCAGACCCCTAAGCCTTCGGACGCTGACTGGGACGACCTGTGGGACCAGTTTGATGA
GCGGCGGTATCTGAATGCCAAAAAGTGGCGCGTTGGTGACGACCCCTATAAAGCTGTATG
CTTTC AACCGCGGAGAGTGAGGCGGGATCTCCAGCAATCGGGCCATCCCGGACACTCG
CCATCTGGAGATGCACATGGCTTGGTGATTGGACGGGACCTTCCACCCACTT

Sequence 1627

GCCACGCGTCCGCCGCCCGCTTGCCCGTCGGTTCGCTAGCTCGCTCGGTGCGCGTCGTCCC
GCTCCATGGCGCTCTTCGTGCGGCTGCTGGCTCTCGCCCTGGCTCTGGCCCTGGGCCCCG
CCGCGACCCTGGCGGGTCCCGCCAAGTCGCCCTACCAGCTGGTGTGTCAGCACAAGCAGG
CTCCGGGGCCGCCAGCACGGCCCCAACGTGTGTGCTGTGCAGAAGGTTATTGGCACTAAT
AGGAAGTACTTCACCAACTGCAAGCAAGTGGTACCAAAGGAAAATCTGTGGCAAATCAAC
AGTCATCAGCTACGAGTGCTGTCTGGATATGAAAAGGTCCCTGGGAAGGANGGGGGCTT
GTCCAAGCAAGCCCTACCACTCTCAAACCTTTACGAGACCCTGGGNAGTCGNTTGGATCC
ACCACCACTCAAGCTGTACACCGACCGCACGGAGAAGCTGAGGCTGAATGGGGAGGGGCC

Sequence 1628

CCTAAGGGCAACAAGGGCGGTCTTGCCAGCCGGGCTTTGAGGGAGAGCAGGGGACCAGA
GGTGCACAGGGCCCCAGCTGGTCTGCTGGTCTCCAGGGCTGATAGGAGAACAAGGCATT
TCTGGACCTCGGGGAAGCGGAGGTGCCGTGGTCTCTGGAGAACGAGGCAGAACCCGG
TCCACTGGGAAGAAAGGGTGAGCCCGGAGAGCCAGGACCAAAAGGAGGAATCGGCAACCG
GGGCCCTCGTGGGGAGACGGGAGATGACGGGAGAGACCGGAGTTGGCAGTGAAGGACGCA
GAGGCAAAAAAGGAGAAAGAGGATTCCCTGGATACCCAGGACCAAGGGTAACCCAGGTN
AACCTGGGCTAAATGGAACAACAGGGACCCAAAGGCATTNAGAGGCCCGAAGGGGA

Sequence 1629

AGTCGCCCCGCGTCCGCTGTGCCTGAAGGAGACTGGTTTTGTCCAGAAATGTCGACCAAAG
CAACGTTCTAGAAGACTCTCCTCTAGACAGAGACCATCCTTGGAAGTGATGAAGATGTG
GAAGACAGTATGGGAGGTGAGGATGATGAAGTTGATGGCGATGAAGAAGAAGGTCAAAGT
GAGGAGGAAGAGTATGAGGTAGAACAAGATGAAGATGACTCTCAAGAAGAGGAAGAAGTC
AGCCTACCCAAACGAGGAAGACCACAAGTTAGATTGCCAGTTAAAACAAGAGGGAACTT
AGCTCTTCTTTCTCAAGTCGTGGCCAACAACAAGGAACCTGGAAGATACCTTCAAGGAG
TCAGCAGAGCACACCCAAAACAACCTGTTTTCTTCTAAAACCTGGGTAGAAGCCTAAGAAAG
ATAAACTCTGCTCCTCCTACAGAAACAAAATCTT

Sequence 1630

TNCGGGCCTGGTGAGCACCGCCGAGGCGCGGGCCAGCTCTTCGAGGTTGTGCGCGGGAGT
GGCACGGCGGGCCCGGGCCGAGCGAGGGGCTAACTTCAGCGGTGGCACCGGGATCGGTTGC
CTTGAGCCTGAAATCATGACCACCCAGGAAAAGAGAACTTTCGCCTGAAAAGTTACAAG
AACAAATCTCTGAATCCCGATGAGATGCGCAGGAGGAGGGAGGAAGAAGGACTGCAGTTA
CGAAAGCAGAAAAGAGAAGAGCAGTTATTCAAGCGGAGAAATGTTGCTACAGCAGAAAGAA
GAAACAGAAGAAGAAGTTATGTGAGATGGAGGCTTTCATGAGGCTCAAGATTAATAACAT
GGGAGATGGCCCAGGGTGGGTGTCATCACTTCTGACATGATTGAAATGATATTTCCAAA

TABLE 1
268/467

AGCCCAGAGCAACAAGCTTTCAGCAACACAAGAAATTCAGGAAGCTGCTTTCAAAAAGAA
CCTAA

Sequence 1631

CGGAGTCACCACGCGTCCGGGGCTGCCAAGGGAGGAGGAAGATGGCGGCGGGGGCGAGGT
GAGGTGTTGGCAGTGGAAAGGGGTTCCGGGCTCGGGGGGCGGGGGACGCGGAGCGATGGC
CCGCGCCCGCCGAGGGGGCGGATAAAAAGCCGTCGCGCTGCGGGAGTGGGCGGGAGGGAG
AGGGGGTGTCCGAGGGGCCACAAGAGTATGACGGGGCTGTACGAGCTGGTGTGGCGGGTGC
TGCACGCGCTGCTCTGTCTGCACCGCACGCTCACCTCCTGGCTCCGCGTTCGGTTCGGCA
CCTGGAACCTGGGATCTGGCGGCGCTGCTGCCGCGCCGCTCTGCGCGGTCTAGCGCCGC
TCGGCTTACGCTCCGCAAGCCCCCGGCAGTCGGCAGGAACCGCGCTCACCACCGGCACC
CGCGCGGGGGGGTCTGCTGCTGG

Sequence 1632

CGTCCGTTTGTTTAATATTTTTTCTCTCTTGAACAAAACCTGAGATAATTTAGAAAACA
GGTGCTTAATTGCAATAAAATTACTATGAAGTATATTAATAATCACGACATTGTAAATC
TCACTTTAGATCATCAAGAAAACCATTTGTTACTATCTCCTTTGAGCTTAGGAAAATGTA
CAAGAGAACAATTAATAATTGAAAAATTGATTTCACTTAGAAAACTTCTAGGAACAGGG
TGAACCACTGATTTTAATTTGCCTAATTATCTTATGACAAGTATCAAATTAAGATGACAC
TTAAAGGATCCTTAGCATTTAATTAATGATGGAGAAAGAGTGCTCAATAGGACAGTTCC
CCAGTTAAGGGGTAATGGAGATGCCATTTTCAGGAGGACCATTCTAAGAAGATATTTTT
GGATTCAATTAATAACATTTAATAAAAAGCCCTTCTTCAAGATTGGGAAC

Sequence 1633

CGCGTCCGCGCGCCTGGTGCACGCGGCGCACCGAGGCCTCCCGCAACGCGCCGACAAGG
AGCGGGCGGCGGGGCGGCGGCGCCGCGCAGCAGCGAGGACGACGCGCAGAGCCGCGCGACG
AGCAGGACGACGACGACAAGGGCGACTCCAAGGAAACGCGGCTGACCCTGATGGAGGAAG
TGCTCCTGCTGGGCCTCAAGGACCGCGAGGGTTACACATCATTTTGAATGACTGTATAT
CATCTGGATTACGTGGCTGTATGTTAATTGAATTAGCATTGAGAGGAAGGTTACAACCTAG
AGGCTTGTGGAATGAGACGTAAAAGTCTATTAACAAG

Sequence 1634

CCCCGCGTCCCGGTTGGCCGGGCGGAGGTCTTCGCTGAGGCCCGGGGCGGGGTGGCGCCA
CCCCTGATTGCGGTGCCACGGAAGTCTCTGCTGGGCGGAGAGGACAGATTTTGCAAAGC
GGAGGCTTGCGACGGGTCTGCAGGGGGACAGTGAGGAAAGGGCCCGCCTCGTNTCCGCT
CCTGGGGGACCCGAGAAATAAGAATCAAACCTCCACAATGACAACCTATTTGGAATTCAT
TCAACAAAAATGAAGAACGAGAATGGGAGTCCCGATTAGT

Sequence 1635

CCACGCGTCCGGGCGGGGCCATCCAAGCAACGCTGAAGGCCTTTTCCAGCAGCTGGGAGC
TCCCGGATTGCGTGCCACAGCTGAGGGGCCTCTGTGATGGCTGAGCTCTCTTATGTCCTA
TACTCACATCAGACATGTGATCATAGTCCCAGAGACAGAGTTGAGGTCTCGAAGAAAAGA
TCCATGATCGGCTTTCTCCTGGGGCCCCCTCCAATTGTTTACTGTTAGAAAGTGGGAATGG
GGTCCCTAGCAGACTTGCTGGAAGGAGCCTATTATAGAGGGGTTGGTTTATGTTGGGGA
GAATTGGGCCTGAATTTCTCCACAGAAATAAGTTGCCATCCTCAGGTTGGCCCTTTCCCA
AGCACTGTAAGTGAGTGGGGTCAGGCAAAGCCCCAAATGAGGGGTTGGTTTAGATTCTGA
CAGTTTGCCAGCCAGGCCCCACCTCAGCGTCTGTGCAACAAACAAAGNTNGGGNNGGTTT
N

Sequence 1636

CCNCGCGTCCGCGGACGCGTGGGCGGACGCGTGGGCTTCTGCAGCAAGCTCAGGAGAGCT
GCTGTCTTCCCTCCCGCCCACCAGCAACGCACCCTCTGACCCTGCCACAACCTACTGCAAA
GGCAGACGCTGCCTCCTCACTCACTGTGGATGTGACGCCCCCACTGCCAAGGCCCCAC
CACCGTTGAGGACAGAGTCGGCGACTCCACCCAGTCAGCGAGAAGCCTGTTTCTGCGGC
TGTGGATGCCAATGCTTCTGAGTCACCTTAACCTTGAACCATTCTTTGGAATTGGCGTGG
TATATTTAACCACGGGAGGCGTGTCTGGAAACGCAAACTATCATTATTTCACTAGGT
TTGTACCGTATCTGTAGGCATTCTGTAAATAATTCCAAGGGGGAAAACCTAAACNNGGAC

TABLE 1
269/467

GTGGGGTTGTATCCTGCCAGGTTTGAGTGGGGGCTCACACCTAGGGTGAGAAGTCAGAAA
GCGCTTGATTTTTAAACAACCAAAAAGAATTGAAAGGGTG

Sequence 1637

CGTCCNATAGGCTTGCACACTTTTCTAACTACATGTTTAAGTGGCAGAGTCCAGGCTGTC
GAGTCACGGTTGGGTTTGAATCTGACTCCACCAGTAACTTTGGTTGGAAAAAATCACTTA
TCCTCTTTAAGCTTGATTTTATTTATTTTATTTATGTAAGAGTGAGACAGTAGTAGCTT
AATAGGGTTGCTTTTAAATTAGAGTGAACATGAGGCATTTATTCGGTGCCAGACAGATAA
CTGCCTATAACAGGATGTGATCAGCACAAAGTAACAGAAAATTAGCCTGGACGGTGGCTTA
AGCAATGGGGAATGTTTATCTCACATAGCAAAAAGGTCTGTAAATAGGATGGTTTTAGAG
TTGGGGTGGGGAAGCCAAAATGTCATCAGGATTTCTTGGAACCCGT

Sequence 1638

CGCGTCCGGATTAATACAACCTCTTAAAAAATATAGTCAATAGGTTACTAAGATATTGCTT
AGCGTTAAGTTTTTAACCGTAATTTTAATAGCTTAAGATTTTAAGAGAAAATATGAAGAC
TTAGAAGAGTAGCATGAGGAAGGGGAAGAAAAGAAGGGGAAGAAGATCAAAGAAGGAAAG
AAGAAGGGGAAGAAAAGAAGGGGAAGAAGATCAAACCCACCATGCCCCAGGCTCAGCAG
GGAGCTGCTGGATGAGAAAGGGCCTGAAGTCTTGCAGGACTCACTGGATAGAAGTTATTC
AACTCCTTCAGGTTGTCTTGAAGTGAAGTGAAGTCAATGCCAGCCCTACAGAAGTGCCTTTA
CGTATTGGAGCAACAGCCGTGTTGGCTTGGCTGTTGACATGGATGAAATTG

Sequence 1639

CGCGTCCGGCTCCCCGCACCCCTCGCACTCNCTCTGGCCGNGCCAGGGCGGCCTTCAGC
CCAACCTTGCCCAGCCCCACGGGCGCCACGGAACCCGCTNGATCTCGCCGCCAACTGGTA
GACA

Sequence 1640

GTCGCCACGCTCCGGCGGCCGGGGCGGGCAGCCGGGAAGCGGGTGGGGTGGTGTGTTA
CCCAGTAGCTNCTGGGACATCGNTCGGGTACGCTCCACGCCGTCNCAGCCACTGCTGTGG
TCGCCGGTC

Sequence 1641

CGTCCGCTCCTCCCGCTGAGGCGAGTCTGGGCTCAGCCTAGAGCTCTCCGGCGGCGGGC
CAGCTTCAGGGCAGCGCGGGCTGCAGCGGCGGCGGGCTTAGGGCTGTGTAGGGCGAGGC
CTCCCCCTTCTCCTCGCCATCCTACTCCTCCTCCTCGTCATCCTCCCCCTTCGTCTCTC
CTCGCCTTCTCCTCCTCGTCAGGCTCGACCCAGCTGTGAGCGGCAAAGATGGGCGGCGC
CCAGGCCGCGCCTGCCAGGCTGTCGGGGCGTCATGGTGCCGGCGCCCATCAAGACCTG
GAGGCCCTGCGCGCGCTCACGGCGCTCTTCAAAGGAGCAGCGGAACCGAGAAACAGCACC
CAGGACTATCTTCAAAGGAGTTCTGGATATCCTAAAGAAATCTTCTATGCTGTTGAGC
TTGCCTGCANGAGATCCATCCCAAGTGGAACCT

Sequence 1642

ACATTTATCATGGATGCTGACCGGGAGAAAGAAAGAAAGAAACGGGAGGAGCGGGAGCGT
AAGCGGCGGAAGGAGGAGGAGGTGCAACAGCCAAAGTTGGCAGAGGAGAGACGGCGGCAG
AATTTACAGGAGGAAAAGGAAAGGAAGTTGGAATGCCTGCCCCCTGAACCTTCCCCTGAT
GACCCTGAAAGTGTCAAGATCATCTTCAAATTACCTAATGATTCTCGAGTAGAGAGACGA
TTCCACTTTTACAGTCTCTAACAGTAATCCACGACTTCTTATTCTCCTTGAAGGAAAGC
CCAGAAAAGTTTCAAGATTGAAGCCAATTTTCCAGGCGAGTGTGCCCTGCATCCCTTC
AGAGGAGTGGCCCAATCCCCCTACGCTACAGGAGGCGGACTTAGCCACCAGAAGNTCTT
TTTGTTGAGGACCTAACTGACGAATGACATTTTTTTCTTTCTGTCCCCCTCCTACCCAGT
CCCTAAAGAAATGGGGNAAAAAGGAAACAACAGCAGTCNTAAAAA

Sequence 1643

CGCGTCCGGAGGGGCTAAGAAGGTTGTCCTTGCTAATGCTCTGATCTGTAAGTGAATAG
GGCAGAACAGTTCAGCCTTGAGGTTAGAATTTAGCAGGAGCTATCCTGACTTAATATCCA
GTTGTGGGGTTTGCAAAACAAAACAGCTGTATGTAATCATTGCCACTAGTTCATCTAGA
ACTCCTTTCTAGTTTGTATTTTAAAATGTTTATACATAAAACCACCAAAATACATAGC
TTCGACAAGATGGAAGTTTATTTCTCTCTCCATAACAGTGCAGTGATAGTCAGCTGGTC

TABLE 1
270/467

CAGGCCAGGCAAGGGGCTGGTCCATGATGTCATCAGGCACCCAGGTTCTACTGGCTTTG
CATGTGGCCACAGTTAGCAACAAANGGAGGCTGTAAATTT

Sequence 1644

CGCCACGCGTCCGGTGATGCGGACCCCGGGCGGGCGCAGGGCGCGGGGCTCCGGCGCCGCC
GCTGCGTCCTCCCGGCCGCGGGCGAGCCGCTGCAGAGGGAGCGTCGCGCCGGGGCGGAG
TGCGGGCTTGCGCGGCAAGTGCGCGCCGAGGTCACGAAATGGATTGGAGTGAACCGGAGA
CCCCGAAAACGGAAGCGCAGGGAGAAGGAAGAGGTGTTTGAAAAGCTTCTTCCAGACCAG
CTGGTCTTGCTTCTGGAGCATCTCTGGAGCAGAAGACTCTGAGCCCCGAACCTCTGCAA
AGCCTCCAGAGGACATACCACCTCCAGGATCAGGATGCAAGAGGTTGCCATCGGTGGTG
TGAACCTATTGTTAAGCACAAGTTCACGAAAGCCTACAAAAGTGTGGAGAGGTTCTTCA
GGGAGGATCAGGCCATGGGGTGTGTACCTCTACGGGGAGCTGATGGTTGAGTGAGGACCC
CAGAC

Sequence 1645

TCGCCACGCGTCCGGGACATCGAGTNCGGGCTGGCTACGAACTCCTCGGGGGCGAAGGTG
GCGGAGAGGGATGGGTTCCAGGACGTCTGCGCGCCGGGGAAGGCTCGGCGGGACGGATT
TGCGGTGCGCAGCCAGTGCCGTTCTGCTCCCTCAGGTGCTTGGCGTGATGATCGGGGCCGGA
GTGGCGGTGGTGGTCACGGCCGTGCTCATCCTCCTGGTGGTGCGGAGGCTGCGAGTGCCA
AAAACCCCGAGCCCCGGATGGCCCCCGGTATCGGTTCCGGAAGAGGGACAAAGTGCTCTTC
TATGGCCGGAAGATTATGCGGAAGGTGTCACAATCCACCTCCTCCCTCGTGGATACCTCT
GTCTCCGCCACCTCCCGGCCACGCATGAGGAAGAACTGAAGATGCTCAACATTGCCAAG
AAGATCCTGCGCATCCAGAAAGAGACGCCACGCTGCAGCGGAAGGAGCCCCCGCCGCA
GTGCTAGGAAGCTGAC

Sequence 1646

TCCGCCAAGTCCTGCGATGATGGACTCAACACCTTCCGCGACGAGGGGCCGGGTTCTGCG
GCGCCTGCCAAACCGCATACCCAGCCTGCGGATGCTCCGGAGCTTCTTACCCGACGGGTC
CTTGATAGCTGGGGCACCTCTGAAGATGCTGACGCTCCTTCTAAGCGACACTCAACCTC
TGACCTCTCAGATGCGACCTTCAGCGATATCAGGAGAGAAGGCTGGTTGTATTATAAGCA
GATTCTACCAAGAAGGGGAAGGCTGAGGACCGGGATGACATGCTGGGCTGGATCAGAGC
GATCCGGGAGAACAGCAGGGCCGAGGGCGAGGACCCCGGCTGTGCCAACCAAGCTCTGAT
CAGCAAGAAGCTTAATGATTATCGCAAAGTGAGCCATAGCTCTGGGCCAAAGCTGATTC
CTCCCCAAAGGCTCTCGCGGCCTGGGGGGCCTCAAGTCTGAGTTCCTCAAGCAGAGTG
GGCCACGTGGCCTCANGACTCAAGACCTGCCCGCAGGAGCAAGGATGACAGTGCTGCAG
CCCCAAAACCCC

Sequence 1647

GGTGTGCCCCGCGTCCGGTTTCTTCTAATTTATATTTCCGATACATANGTGTAGAACA
GGAATTTGCAGAAGCCATTTAAGTTATCTTTGAGGTAANGCTCTGATTTAGCATTTATT
CTGATAAAATCTAATACATCATGGGATATATATAAGCAACTTAATTCTTGTTGGTGTAGT
CTTAATAGTTTTGAATGTTGACTGAATGTCTATAAAATTGTGAGTTTGTCTTTGTTACAT
TCCAGTGTTTCTGCCTCTTGGCATGCTTAAAGCACGGCTTACTTCATCTGCTCCTTACAC
ACTAAAATGCTGTTAGTGTGCTCAACTACAGAAATAGCCGCTGCTAAGTTGATGTAGATT
TTCTACTTGAATATTTTATGGTTGTAGGAACCTCAGGAGGGTCAGTGTTTACTGGTTTA
TATATGCCTTCTTTTCTGTTTGGCTTCTCTTTGAAGGGATTCTAACAGAACAAA
GCTGCTGATCACCCCTAAGTTGGAAACAGNAAAGNGTAATTAATACTTAATGC

Sequence 1648

TCACCACGCGTCCGAAAGTCCGTGACATGGTTCCTCGTGGTGGCCCGTGGCAGCCCGTGG
CATGGCGTGGCTCAGCTGTCTGTTGAAGTTGTTGCAAGGAAAAGAGGAAACATCTCGGGC
CTAGTTCAAACCTTTGCCTCAAAGCCATCCCCACCACTGCTTAGCGTCTGAGATCCG
CGTGAAAAGTCTCTGCCACGAGAGCAGGGAGTTGGGGCCACGCAGAAATGGCCTCAAG
GGGACTCTGCTCCACGTGGGGCCAGGCGTGTGACTGACGCTGTCCGACGAAGGCGGCCAC
GGACGGACGCCAGCACACCGAAGTCACGTGCCAAGTGCCCTTGATTGTTCTTTCTTCT
AAAGACGACAGTCTTTGTTGTTAGCACTGAATTATTGAAAATGTCAACCAGATTCTAGAA

TABLE 1
271/467

ACTGCGGTATTCCAGTTCTTCTGACACCGGATGGGTGCTTGGGAACCGTTTGAGCCTTAT
AGATCATTTACATTCAATTT

Sequence 1649

CNCCACGCGTCCGGGGATCCCTGGGGAGAGTAACAGTGGCCCCACATCCCTCCTCCTGGG
AGACGCTGGTGCAGGGCCTCAGTGGCTTGACTCTCAGCCTAGGCACCAACCAGCCCGGGC
CTCTGCCTGAAGCGGCACTCCAGCCACAGGAGACAGAGGAGAAGCGCCAGCGAGAGAGGC
AGCAGGAGAGCAAAATAATGTTTCAGAGGCTGCTCAAGCAGTGGTTAGAGGAAAAGTCTGAG
ACGTGCACCCCCATGGGATGGAGACCCGAAGGGACTCAGACGGAGCCGCCGTGTTGGCAG
CGCCTGGGTGTGGGCCCATTGTTGGGGACCAACAGCAAGCTGTGGTCCGATGAGTGCCAG
GACCTGTGTACCGGGACACGTGGGGAGTCCTCCAGCATGATGCTTGACTGACCCGAGGA
AGGTCCCTCATGTTTCGTGCCTGTCTTCGGATGGCTGTGAGGCATTCCCTGGCAAGGG
ATGCTTGCGTACCAAGCGGTCTACCGCATCTACATGGCTTCTGTGATGCATGTTGTCCG
TTTCCACCCNGGAT

Sequence 1650

CGCGTCCGAGCTTTGCAGGGAAGAACAGAGTATGGGTCTCTCAGCCCCCTCATGCCTCGG
AAGGCTACTACCGCCTCATGATGAGCCTGCTGAAGGACGATGTGTACTGTGAGCTGGCGG
AGAGGCACATCCAACAGATTGTGCTCTTCCACCAGGCAGGTGAGGAAGGAGGCAAGGTGA
GAAGGATCACCAGCGAGGGCCAGATCCTGGAGCAGCCCCCTGGACCCTAGCCTCATCCCTA
AGCTGATGAGCTTCCTGAAGCTGGAGAAGGGCAAGTTTGGCATGGTGTCTGAAGAAGA
CGCTGCAGGTGGAGGAGCGCTATCCATATCCCGTTAGGCTGGAAGCCATGTACCGAGGTC
ATNGACCAAGGCCCATCCGTAGGATCGAGAAGATCAGGCAGAAGGGCTTTGTCCAGAAA
ATGTAAGGCCTCTTGGTGTAGAGGGCCANNGTTGGTTGNCTGAGGGGGAATTGACCCGTT
GGAAGGGGGAAGCAATGAAAGGGCCAAAG

Sequence 1651

CGCGTCCGGGATGCCTTGGGTCTGAAAGTCGATGAAGGACGCGATTACCTGCGATAAGCT
TCGTGGAGTTGGAAATAAACTATGATACGGAGATTTCCGAATGGGGTAACCTAACTGAGC
AAACCTCAGTTGCATTTTGATGAATCCATAGTCAAATTAGCGAGACACGTTGCCAATTGA
AACATCTTAGTAGCAACAGGAAAAAGAAAATAAATAATGATTTGTCAGTAGTGCGGAGCG
AAAGCGAAAGAGCCCCAACCTGTAAAAAGGGGTTGTAGGACATNTTACATTGAGTTACAA
AATTTTATGATAGTAGAAGAAGTTGGAAGCTTCAACATAGAAGGTGATATTCCTGTATA
CCGAAATCATAAAATCTCATAGATGTATCCTGAGTAGGGCGGG

Sequence 1652

GTCGCCNCGCGTCCGCAACATTATTGAGATTGTCGTGTATAGTCATCGAATATCAGCCAG
TTCCTGTAATTTTGTGACACGCTCTCTGCCAAGCCCACCAAGTATTTCTTTATAGCTAA
AAGTTCCATAGTACTAAGGAAATAAAGCAATAAAGACAGTCTCAGCAGCCAGGATTCTGG
CTGAAGGAAATGATCCGCCACCCTGAGGGTGGTGATGGTAGTTTCTACCCATACCTCAGC
CTCAGGCGAGTGGCTTATAGCCTCCATTATGGTGCACCTTATTTATGGTACTAAGATAA
AGACTGTCAATCCATTGATTTATCTCCTCCTGTCCCCCATCTAAAATACCCATGCTGCTT
TTCTGGAGTGTTGTGGGGGGGTTACCAGCTTGATCCACTGGTGCTCTTTAAGAAGGCCCA
AGAAAGGTCTTTGGGGCATTGCCAAAGAAAATCCCGGATTTATGTGGGAAAACCTCACT
TTTCTCTTTACNGGCTGGTACCAAGA

Sequence 1653

CCGTCCGTTTTTTTTTGAACCTACCGTAAAATTTTTTTTTTAAAAAGTGCTTGTAATAAT
TAAAGAGGAATAAAAGGGGGGTGAACAGCCAGTACGATAGTGCATGCCTGAAATTCCAGT
GCTTTGGGAGGCCGAGGCAGGAGGATCGTTTGAGGCCAGTAGTTGGAGAGCAGTGTGGGG
AACGTAGCAAGACCCCATCTCTACAAAAAATTTAAAAAGTTAGCCGGGCATGGTGATTAC
ACCTGGAGTTCAGCTGCTGTGGAGGCTGAGGTGGGAGGATCGCTTGAGCCCAGGAATTT
GAGGCTGCAGTGAGCCATGATTGCACCACCGCACTTCAGCCTAGGTGACAGAGCAAGGTT
CTACCTCAGAAAAAAGAGGAGGAGCAAGCACGTGTTGATGGGTGGAAATCCAGCC
AGAAATGCTGAGGCTGAAAAGATTGTTCCAGTTTCTGTTAGCCAGGGGAAAAGGGGAA
ATT

TABLE 1
272/467

Sequence 1654

CGCGTCCGCTGACATTTCTAGGAAGCTNGGAAAAGGAAAGTGAAGGAATGGTCTAAAGA
AATGACCATTACACTGATTTTGTCTGGACAGTCTGGCCGACAGTTATTCATAGATTATT
CAGCCTTTGCAGGACTTGGATTGAGGGTTTTACTCAGTCCCTTTACCTTAGGTGGAATCT
TCTTAAATTGAAATTTTTGGTAAGGAATTCATTTACAGGTAGTGTTCAGACTCTGAAA
GCCCTGACTTGGTTCTTGGCTTCTACTGTACTAGTTACTAGTTACTGGTACTGTTGCCAA
GCAATCTGCTTGAATTTGTGGATCCCTGCTGTTCCCTAATCCCACCCCTGCCCTGAGA
CAGTGAATGTAGTCCGTGAAGGGAGTGCCTCTCTGGGACCCCTGTGTTGTTACAGGCTG
TGCAGTGCAACAATTCCAGCAAAAATACCCTATCCCCGCACTTAGTCATTCTGTGGTAACT
AACAATTTGAAATACTCATATAAAATGAACAGGAAAGTGGTTAGTG

Sequence 1655

GACCACGCGTCCGGACCCAGACCCGGCTGACCCACCTACCCGCGATCCTGCCCATGGCTG
ACGGGCTCTTTGCGCGCAGACCCTGGGGTCTCGAGCAGATTGCCCCGACCCCGAGTCCG
AAGCCTGTTTGACAAGCCTCCCCCGGAAGACCCTCCGCTGCCCGCGGGCCCAAGTCCG
CGTCCGCGCGGGCAAGAAGGCTGGTCCGCGCGGGCGGGAGGGCGCAGGGGGGCCGCG
CCGGGCAGCCCCGAAGGCCGCATCGCGCCCCCGCCCAAGAAGGAGGCGCTCCACTGG
ACGAGGGCTGCTATCTCGACCATTTTCCGCACCTCTCCATCTTCATCTACGCAGCCATCG
CCTTCTCCATCACCTCCTGCATCTTTACCTATATCCATTTACAGCTTGCTGAGTGGCCA
GCGCGGGACGGGGTGGGCGCAGGACCGAGCGGGGAGGGAAAGGGGAAAACGGGGGCTNGG
CATTTTGTGTTTTAG

Sequence 1656

CNCTAACCCCGAACTCTAGATCGTCTTGCTTGTGTTGTCTGAAGAAGGGAATGAAATAGAA
AGTGGAATAATAATTTTTCAGAGCATCTTCCCTTAAGTAAGCTACAGCAAGGCATAAAA
TCTGGTACATACCTTCAAGGAACATTTAGAGCTAGCAGGGAAAATTACTTGGAAGCTACA
GTATGGATTATGGCGACAGTGAAGAAAATAAGAGATAATCTTACAGGGACTTAAACAT
TTAAACAGAGCTGTTACGAAGATATTGTGGCTGTGGAGCTTCTCCCAAGAGTCAGTGG
GTAGCACCATCTTCTGTGGTTTTACATGATGAAGGTCAAAATGAAGAAGATGTGGAGAAA
GAAGAAGAGACAGAACGAATGCTTAAGACTGCTGTAAGCGAGAAAATGTTGAAGCCTACA
GGTAGGAGTTGTAGGAATAATAAAAAGGAATTGGA

Sequence 1657

CGTCCGCGGACGCGTGGGCGGACGCGTGGGCTGGCTGTATCTATACTTTCTTGAGAAAA
ATCCCATAAAGTGGATGGACCTGTGAAGAAAATGTATGCTTATGGCCTAGCCTTCATGTC
TGGCTGATGTATCCTATAAGGCAGTAAGCCCCTTTTCTAGTCTCTGGTAAGATGCAAGAG
CTCATATCCCCATCACTGACATTTTAGTTTGGAAATAATATTGAGACTGTGCTATGACCA
ACCCCTGATGTTGTTTTTTCTTTTCAAACTTTTGCATATGAGTAGAGGAAAAGCCTAAAA
GTTAAGTATTTATGTCTGGGGGGATACCTCAGGTGTCTTATCTGTTTTATGCAAGAATT
TATGTGTTTCATCTTTATTCAGTGCAAAGATTTTTTTTTAAATTTTGTATAATTGGAGG
TAACATTAAGACAACCTCTTCTCCACAAGAAAACCTCTAAATTAATATTCCTTAAGATT
TGGTTTTCTTTGCCTTATAATATTACCTTTTAATTGCATGCAAGATTGTCATACTTTTC
AAAAG

Sequence 1658

GTCGCCCCGCGTCCGTTTGATATACCACTCTGATAACTCATATAAAAATATCATCATAAA
AAGCTTAATTTTCATCCCTTTTATGTTGGTTTTAAAAGGTAAATGCTTACCATATTTTATA
ATTGAGAACTCTTACATAGTAGAATCCATTCTATAATACATGTGTTGACAAAGCTTTAGA
GAAAGTTTCTATTCTCTTCCATTTCCCTGCCCCAAAGTGCTGACATAGGCAGTGATGAA
GAATCTTTACCAAGATTTTCAGGGTGACCTATGAAATTGCTTTAAATGCACTGCTGGTG
TAAATAATTAGCAAGCAAAAGCGTTTCTGTGACTTCAGGTACCAGCTTAAAGAGCACTAG
GGATGGGGAACGAATGCCAAATCAGACTCCACCTAGAGCACCAGGAAACAGCTTGTCCCT
GGTAGGGAATGGTGTGCTGAAAG

Sequence 1659

CGACCNCGCGTCCGGCTGNTGACCCCATGCTGAGTGGCCNGTGGGGAGCGGCGCCCGGCA

TABLE 1
273/467

GGCTCTTCTGGGGTCGTCTGTCCTATCCGTGGATTGTATATACTCTTCTCTGTTAAGGAG
TTTTTCCCAAGAAGAAAAGTATTTAAAGAAATACCAGTGAGTGCCTTAAAGTTGGAGAA
GTAAGTGGCCATGCCAGAAATAAGGATGCCAGTGCCAGAGCAGTGAGATTAGTCTGT
GTCCACAAGCAGAGGCCCCCTCGATGGGAGGGAGTGGCAGGCAGGAGAAGGTGGCGCTGC
CAGGTGCCCGGGTCTATTGGAGGCGCCCCATCTCAGACTTCCTAACACAGCCTGTGTGGA
AGGCAGAACAAAGAATGCATGCCAGTCAGAAATCTGTTCTATTCTGCTCCAGGAAAATC
GGAAACCTGTGAGTCANAGTCAGAGAACTTACCCAGCCACGTATTCCTGTTTCATGGGT
NCTGTAGATGTTTTGAGTCAAGGAAGGTA

Sequence 1660

TGCACCNCGCGTCCGGTGGGTCCCTGCCGGCCGGCGGGCGGCAGACAGCGGCGGGCGC
AGGACGTGCACTATGGCTCGGGGCTCGCTGCGCCGTTGCTGCGGCTCCTCGTGCTGGGG
CTCTGGCTGGCGTTGCTGCGCTCCGTGGCCGGGGAGCAAGCGCCAGGCACCGCCCCCTGC
TCCCGCGGCAGCTCCTGGAGCGCGGACCTGGACAAGTGCATGGACTGCGCGTCTTGACAGG
GCGCGACCGCACAGCGACTTCTGCCTGGGCTGAGCTGCAGCACCTCCTGCCCCCTTCCGG
CTGCTTTGGCCCATCCTTGGGGGCGCTCTGAGCCTGACCTTCGTGCTGGGGCTGCTTTCT
GGCTTTTTGGTCTGGAGACGATGCCGCAGGAGAGAAGAAGTTCACCACCCCCATAGAGGA
GACCGGCGGANAGGGCTGC

Sequence 1661

GGTGTGACCNCGCGTCCGGCGCCCCGCTCGCATTGTTGCGGGCGACTCTCGGAGCGCGCA
CAGTCGGCTCGCAGCGCGGCACTACAGCGGCCCGGCCCGCCCCGCGGCCCGCGCG
CAGGCAGTTCAGATTAAGAAGCTAATTGATCAAGAAATCAAGTCTCAGGAGGAGAAGGA
GCAAGAAAAGGAGAAAAGGGTCACCACCCTGAAAGAGGAGCTGACCAAGCTGAAGTCTTT
TGCTTTGATGGTGGTGGATGAACAGCAAAGGCTGACGGCACAGCTCACCTTCAAAGACA
GAAAATCCAAGAGCTGACCACAAATGCAAAGGAAACACATACCAAAGTACCCCTTGCTGA
AGCCAGAGTTCAGGAGGAAGAGCAGAAGGCAACCAGACTAGAGAAGGAACTGNNAACGCA
GACCACAAAAGTTTTACCAAGACCAAGACACAATTATGGCGAA

Sequence 1662

GACCACGCGTCCGGAAGGAAGGGACGGGCTGAGTTCCTCCGACGAGAGACACACCCAGATT
TTCTGCAGCTTGGGGAGAGGTCTCCAGGAGCCTTGGTCCCTCCTGGCCTGCCGGAGT
CCTTAGCCAGGATGGAGGCTGTTGTGAAGTGTACCAAGAGGTGATGAAGCACGCAGATC
CCCGGATCCAGGGCTACCCTCTGATGGGGTCCCCCTTGCTAATGACCTCCATTCTNCTGA
CCTACGTGTAATCGTTCTCTCACTTGGGCCTCGNATCATGGCTAATCGGAAGCCCTT

Sequence 1663

GTCGACCACGCGTCCGGGCTCCATCCGGGCTATCCTGCCGCCTTAGCGGCTGCTTCTCC
CAGGATGCGGGCAGGGGGCCTCTCTCCCACTCCCCACACACCGATTCTGAGTAGCGATA
GGGGCTGGAGGCTTATTTATGGGGTAGGGGGCGCTGGTAGGCGAAGATTGTCCGAGGG
AGAGGGGGAGGATGAAGCCAGTGCCTGGCGGAGACTTGCCAGATGTTGATGCCTAAGAAG
AACCAGATTGCCATTTATGAACTCCTTTTAAGGAGGGAGTCATGGTGGCCAAGAAGGAT
GTCCACATGCCTAAGCACCCGGAGCTGGCAGACAAGAATGTGCCAACCTTCATGTCATG
AAGGCCATGCAGTCTCTCAAGTCCCAGAGGCTACGTGAAGGAACAGTTTGCCTGGAGACAT
TTCTACTGGTACCTTACCAATGAGGGTATCCAGTATCTCCGTGATTACCTTCATCTG

Sequence 1664

CCGCGTCCGGGGGTTGGTACCCGAGCGCCTTCCCCTCACCTCAACCAGAGAAGAGCATCC
GGTTGCTTTTTAAAGCTTTTAGCCTGCCCTAGCAAGGACAAAGCATGTTAGATTAGAGAT
GCTTCTGCTGATCGCAGGGGTTCTTATTTGAAAACATCTATGATGGGGGTGGGGTGGGAG
GAGACAGGTTGTGGTTATGCAGGAAAATCTTGTCCTAAAAATATAGATTTGGGGGTAA
GGGGTGGGATAGCCAAGCAAAATCAGTAATTATTTAAATGAACATATGTATTTTTATT
AACTTTTAGTTAAATACAGATTTTACAACGAGGTGAGCATAAGCCTAAATCTATATAGAG
GGCTAACTCAGGCATTGTCTTGTTTATTTGTAGACTGGATTAAAAACAACCTGTCCTGTT
TTGTNAGTTCACAGCTTCTTTCGTTTAGAATAAATTAGACCAAAAGAA

Sequence 1665

TABLE 1
274/467

CGGTNCGCTTAATGTCAATGTGGCCTGGGCTGGAGGTCTGGACCCCCCATGGGGGATCC
TGAGTACCTGGCTGCTTTCAGGATAGTCGTGATGCCCATCGCCGAGAGTTCTCTCCAGA
CCTAGTCCTGGTGTCTGCTGGATTTGATGCTGCTGAGGGTCACCCGCCCCACTGGGTGG
CTACCATGTTTCTGCCAAATGTTTTGGATACATGACGCAGCAACTGATGAACCTGGCAGG
AGGCGCAGTGGTGTGGCCTTGGAGGGTGGCCATGACCTCACAGCCATCTGTGACGCCTC
TGAGGCCTGTGTGGCTGCTCTTCTGGGTAACAGGGTGGATCCCTTTT CAGAAGAAGGCTG
GAAACAGAAACCCAACTCAATGCCATCCGCTCTCTGGAGGCCGTGATCCGGGTGCACAG
TAAGTGTGGAGATGGGACACTCGCTGAGCTCAGACTGAAGGATCTTGGT

Sequence 1666

CGACCNCGCGTCCGGTGTGATGATCGCTACTGCTGGAGACCGCACAGAGGAGTTCCACGG
CCACNGCAGTGAACCTCCTGGGGAACCTGCCCCTCAAGTGTCTGGATGTTCTCTCACCC
TGGAGCCACATGGAGACTCCACGGAGTTCATGGGAGTGAATATGGATGTGATTCTGCCCC
TCCTCATCTTCTAGAGAAGCGTTTGCACAAGACACACAGGCTGAAGGAGAGTGTAGCTC
CCGTGCTGAGCGTGTGACTGAATGTGCCCCGATGCACCGCCAGCCAGGAAGTTCCTGA
AGGCCCAGGTGCTGCCCCCTCTGCGGGATGTGAGGACACGGCCTGAGGTTGGGGGAGATG
CTGCGGAACAAGCTTGTCCGCCTCATGACACACCTGGACACAAGATGTGAAGAGGGTGGC
TGCCGAGTCTTGTGTTG

Sequence 1667

NCGCGTCCGACACTATTTAGAGAGCTCCCTTCCCACCTCTCTGCCAGCCTTGTTACCTC
ACTTCTGCTCTGGCCATGGCTGTGAAGGGCCCAGCCAGCTCCCTGTTTTGATGTTCTGTG
CAACAGCTCCGGGGTCTTGTGACTGGAGATCCTCAACAGGCCCTGGAGCCAGGACTGGAG
TCTTGGCAGCTGATGAGCAGCACCTTGCCGGCCAGGAGGAGCTGATGCTGACGATCTCCC
CAACATCTGAAGGCTTAAAGAACATTGTGCTTCTCAGCCCTCCTTGCTTCTCTCAATAC
AATAAGACATTGCAGAAGCAAAAGGGTGGCCTCTGCTCCAGGCAAGGCAGCTGGCTCTGT
CTGGGGGCGTCCGCCCTGGGGCTTGGGTGCCACGTGCTGAGATTGCATAGTCAAAACAAGC
CATTTTTGCCAACAAATAGCTTGTGGCTCCCACATTTTTCTACCCTTGCACTNAANGGCCA
GACCACTCTNTGCATGGACCAANACCATNTTCCAAACCCATGGGGCTTTTTTTNCC

Sequence 1668

CANGAATACTGAAAAATGAAGCCTAAAATGAAGTATTCAACCAACAAAATTTCCACAGCA
AAGTGGAAGAACACAGCAAGCAAAAGCCTTGTGTTTCAAGCTGGGAAAATCCCAACAGAAG
GCCAAAGAAGTTTGCCCCATGTACTTTATGAAGCTCCGCTCTGGCCTTATGATAAAAAAG
GAGGCCTGTTACTTTAGGAGAGAAAACCAAAAAGGCCTTCACTGAAAACAGGTAGAAAG
CACAAAAGACATCTGGTACTCGCTGCCTGTCAACAGCAGTCTACTGTGGAGTGCTTTGCC
TTTGGTATATCAAGGGGTCCAGAAATATACTAGAGCACTTCATGATTCAAGTATCACAGG
AATTTACCTATTACAGAGTATCTTGCTTCTCTAAGCACATACAATGGATCAATCCATTA
CTTTTGCTTTGGAGGATGGAAAGTTATGAGATATATGTTGAAGACTTGAAAAAAG

Sequence 1669

GTCGACCNCGCGTCCGCCCCGCCATCACTGCTGTTCCCTCCAGGGCCAGCACTCGGGCGAG
GCAGGGGAGCTGCCTTCGGTACATAATTTGAAGGGGCACTCCCTCTTGGGCACATGCCGG
CCCTGAGTGCCCTCCCTTGCCCTCACTCTGATCCTGGCCCCATAATGTCCTCAGTGGAAGGT
GATGGGGGGCCGGTGTGTGGGGAGAGTAGAAAGAGGGGTTGGCATGACTAAAAATACCA
TATGTGTATTAAGTATTTGAGAATGAAATGCCAAGGAGTGCCCTACTATATGCCAGCTCT
AGGAATGGAGTAGACAGTGGACACAAGAAGGACTTACGCCCTGAGCACAGGTGCCAATGG
TGACAAGACTGGCAAGACGTGAGGGCATGAATGGTTCATTACAGGCAGCTGCTGCAGATGT
GGTACCTGGTGCCATCTGCTGCTCCCTTTTCCACTTTTCTATGTCCTCCTTCCACCCCA
A

Sequence 1670

CGACCNCGCGTCCGGTCTGAAGGGTCTGGCTGGTGAGCCAGGTTTTTAAAGGCAGCCGAGG
GGACCCTGGGCCCCCAGGACCACCTCCTGTATCCTGCCAGGAATGAAAGACATTAAAGG
AGAGAAAGGAGATGAAGGGCCTATGGGGCTGAAAGGATACCTGGGCGCAAAAGGTATCCA
AGGAATGCCAGGCATCCCAGGGCTGTCAGGAATCCCTGGGCTGCCTGGGAGGCCCGGCCA

TABLE 1
275/467

CATCAAAGGAGTCAAGGGAGACATCGGAGTCCCCGGCATCCCCGGTTTGCCAGGATTCCC
TGGGGTGGCTGGCCCCCTGGAATTACGGGATTCCCAGGATTCATAGGAAGCCGGGGTGA
CAAAGGTGCCCCAGGGAGAGCAGGCCTGTATGGCGAGATTGGCNCGACTGGTGATTTCCG
TGACATCGGGGACACTATAAATTTACCAGGAAGACCAGGCCTGAAGGGGGAGCGGNGCAC
CACTGGAATACCAGGTCTGAAGGGATTCTTTGGAGAGAAG

Sequence 1671

GAGTCGACCNCGCGTCCGCAACTGGTGTCCAGCTCGGTGCACTCCAAGCGCCGTTCCCGA
GCGGACCTCACGGCCGAGATGATCAGCGCCCCGCTGGGCGACTTCCGCCACACCATGCAC
GTTGGCCGGGGCCGGAGACGCCTTTGGGGACACCTCCTTCTCAATAGCAAGGCTGGCGAG
CCCGACGGCGAGTCCTTGGACGAACAGCCCTCTTCTCATCTTCCAAACGCAGTCTCCTG
TCCAGGAAGTTCCGGGGCAGCAAGCGGTACAGTCGGTGACCAGGGGGGAGCGGGAGCAG
CGTGACATGCTGGGCTCCCTGCGGGACTCGGCCCTGTTTGTAAGAATGCCATGTCCCTG
CCCCAGCTCAATGAGAAGGAGGCCGCGGAGAAGGGCACCAGTAAGCTGCCCAAGAGCCCTG
TCATCCAGCCCCGTGAAGAAGGCCAATGACGGGGGAGGGCGCGCATGAGGAGGCGGGCAC
GGAGGAAGGCAGTGCCCCGTGCGAAT

Sequence 1672

CGCGTCCGCTCGCGGCGNGGGCATCGNGTACATCCTCAGCAACCATGGGCTACGTGCGCCA
GCTCTCCAGGCCCTGGACACATCCAACGTGATGGTGAAGAAGCAGGTGTTTGAGCTACT
GGCTGCCCTGTGCATCTACTCTCCCGAGGGGCCACGTGCTGACCTGGACGCCCTGGACCA
CTACAAGACGGTGTGCAGCCAGCAGTACCGCTTCAGCATTGTATGAACGAGCTCTCCGG
CAGCGACAACGTGCCCTACGTGGTCAACCTGCTTAGCGTGATCAACGCCGTGCTCTGGG
CCCCGAGGACCTGCGCGCGCGCACCCAGCTGCGGAACGAGTTTATCGGGCTGCAGCTGCT
GGACGTCCTGGCTCGCCTGCGGTGAGTCCCCACTGTAGCGGTCTGCGGNTTNNCCCTC
CTGCTCCCAAGGCCAGGCCACCTGCCCTTTGGCTCCAGCCACCTCACCTAAGCAGCAC
CTTCCAGATGGCAGGGGAGGTGGC

Sequence 1673

GTCGACCACGCGTCCGGCCAGAGCTGAGTGGCAGCCGCTCCCTTATGCAGGACATGTGC
TCTCGGCTTACCAGGGTTCTGACCGGGTCTGCTTCTGCATTACAGCGCCTCCTGGACC
TGAAGGCATCTGAGTGTGAGACCCTGTTCTAACTCTTAGAAGTGACATTGTAAGAGGTGG
TGGGGACCAGCTAATTGGTCCAACCCAGCCTGAGTGCACCACCCTTTGAACAAATGTATC
AGTGATGAAAAATTTGCCTTTGCCCCGGCTTGCTGTAAATCCAGCACTTTGGGAGGCCGA
GGTGGGCGGATCACTTGAGGTGCGGGAGTTGAGGACCAGCCTGGCCAGCGTGCCGAAACCC
CGTCTCTACTAAACATAAAAAAATTAGTCAGGTGTGGCGGTGCGTGCCTGTGGTCCCAGC
TATTCAGGAGGCTGAGGCACCAGAATTGCTTGA

Sequence 1674

TGACGGCGGGCCCGGCCGACGGGAGCCGGGGCGGGGCGGCGGNCCANCGAAGGAGCGCGCG
GGCGGTCTGGCCCCGCCCCCTCCCCGCCGCTTCCCGGTGACCTTCAGGGGCCCGGGTG
GCGGGCGCAGGCCCTGCGGCGGCGGCGGGATGTTCTGTCAGGAGGAGAAGATCTTCGCG
GGCAAGGTGCTGCGGCTGCACATTTGCGCGTNCGACGGCGCCTAGTGGCTGGAGGAGGCC
ACCCNGGACACCTACNGTGGANAAANCTCAAGGAGCGCTTGCCTCAAAGCACTGTGCTCA
TGGGGAGCTTANAAGATCCCCAAAAGTATAACCCATCATTAAATTTAATCCACGCTGCC
TNAANANAAGGGGTGCTTGNGTGATTGCCATGNACCATNCTTGGGAAGGAAGAAACCATT
CCCAGGACCCAAAAGATGGGCCCTATTTNTTGGATTA

Sequence 1675

CACGCGTCCGGGATCCCGTACCCGGGACAGACTCGGCGCCGCTGGCTGGCCTGGCCTGGT
CGTCGGCCTCTGCACCCCCGCCGCGGGGGTTGAGCGCGATCTCCTGCACCGTCGAGGGGG
CACCCGCCAGCTTTGGCAAGAGCTTCGCGCAGAAATCTGGCTACTTCTGTGCCCTAGTT
CTCTGGGCAGCCTAGAGAACCCGCAGGAGAACGTGGTGGCCGATATCCAGATCGTGGTGG
ACAAGAGCCCCCTGCCGCTGGGCTTCTCCCCGTCTGCGACCCCATGGATTCCAAGGCCT
CTGTGTCCAAGAAGAAACGCATGTGTGTGAAGCTGTTGCCCTGGGAGCCACGGACACGG
CTGTGTTTGATGTCCGGCTGAGTGGGAAGACCAAGACAGTGCTGGATACCTTCGAATAG

TABLE 1

276/467

GGGACATGGGCGGCTTTGCCATTCTGGTGCAAGAAGGCCA

Sequence 1676

TCCCTCTGCTGATGATGGATGCCCCTAACACCTGTGCCTAACACCCCTACTGAACCCAC
AGCTCCAGCCTTAGTTTTGGAGTCAAGTGTTAAAGGTTTCTGGCCAGAGGAATTGGGGT
CTTGCCATCCCTGCAATAGCCCTTTATGGGCTCTGGGAGACAGCTTTAGGGAATAAATG
GGGATTTTCCCCTTTTCTACCCACTCCTTTGCTTCCTCCAAGACTTACCCAACTCCTTC
CCCCTCAGAGAACCAAATAGCCTGAGGAAGCAGGAGAGTTCTGGTTATGGCAGATTCTT
GGTGATTTGGGGCTTCAAGACAGTAGGTGAGAGATGCTGTCAGGGACGTATCTTCTTCAT
ACCAAAGTCACTGGTCCTTTCTCAGCCTCTCTCGTGCTTTTCTCCTAATGACCATATTTT
TGCCAAAATTGGGAATATGTTATCTGACAGACCAGAATATTTGAAGGTTTGGGCTG

Sequence 1677

GCGCCGCGGATATNCGGATCAACCTATGGTNTCAATATTGTNAGTTATTCAGCATAAACA
GAATTATTTCCCAANACTTGATCTGAAATATTNNTAATGGTCNTACTNGAAACTTATATT
CTTNCTGGGAGNGANGTNTTATCATTTTTCCATGGAGACAGGTTCTAACTCTGTTGCC
AGGCTGCANTGCAGTGATGTGATCATAGCTCACTGCAGCCTGAAACTCCTGGGTGTCAAG
TGATCTCTGGCCTCAGCCTCCCAAGTAGTTGGAACCTCAGATACGTGCCACCACAACCAG
CTAATTTATTTTTAGAGATGAGGTNTCGCTATGTNGCCCAGTCTGGCCNNCTAGCCNCA
AGTGATCTGGCCATCTNAGCCTTCAGTTGGAGATGTCTGATTTATGTTAATATAAGAAAG
CTGTTGATCGTTTATCATAAANGCATT

Sequence 1678

GTCNCCNCGCGTCCGCTCCTCCGCCGGCATGCAACTCGGCGCCCGCGGTCCATGGACCGG
AACCTCGGGCCGACGGACGGGAACCCGGGCCGCGATCGCCGCCCTCCCCGCCTCAGGCTCC
TCCTCCTCGCTCTCCGCCGCTCCGCCGACTCCCGCAGGCCCTGCACCGCCGCCGCCAG
GCTAGCGGAGCTGCCCCGGGAAGCTGGGTGACGGGTTGCGCGCTGCCGCCGACTGCGGC
CTACTCCGCGCTCTCAGTGCTATTGTCCCTGGGCCTGGCCTTGAGCGGGTCCACTGGG
GAAGGCNCGTGTGCGCCGGCTCCGCCGAAGATGCCGGACCAAGCCCTACAGCAGATGCTG
GACAAGAAGTTGCTGGGTTTGTGTTGCTACTGATGAAGATGATAGAACAGCTGAATGGT
GAGGACCATGGCAGGTGCAGGAGGATCTACAAAATGGGTTACCAGGGCCTGTCTACAAC
GCTGGGTGGATGAAAAGCAAAGAG

Sequence 1679

GCGTCCGGGCCCCGCGACCGAGCGTGCGGACTGGCCTCCCAAGCGTGGGGCGACAAGCTGC
CGGAGCTGCAATGGGCCGCGGCTGGGGATTCTTGTGTTGGCCTCCTGGGCGCCGTGTGGCT
GCTCAGCTCGGGCCACGGAGAGGAGCAGCCCCGGAGACAGCGGCACAGAGGTGCTTCTG
CCAGGTTAGTGGTTACTTGATGATTGTACCTGTGATGTTGAAACCATTGATAGATTTAA
TAACTACAGGCTTTTCCCAAGACTACAAAACCTTCTTGAAAGTGACTACTTTAGGTATTA
CAAGGTAAACCTGAAGAGGCCCGTGTCTTTCTGGAATGACATCAGCCAGTGTGGAAGAA
GGGACTGTGCTGTCAAACCATGTCAATCTGATGAAGTTCCTGATGGAATTAATCTGCG
AGCTACAAGTATTCTGAAGAAGCCAATAATCTCATTGAAGGAATGTGAACAAGCTGAACG
ACTTGGAAGCAGTGGAT

Sequence 1680

GTCCGGCGTGGGGAAGGGTGGGGTGAGGGGGCGTGGCCGCAGCTAGGGCGGCGAACTCT
CCTCCCCTCGGCCCCACCGCGTGGGACGGCGTGAACGTGGTGTGCGAGGGATGTCAGCCT
TCTTGAGGCGGCGCTGGAGAAGAAGCTGTGCGAGTTGAGCAACTCGCAGCAGAGCGTGC
AGACCTTGTCCCTGTGGCTCATTACCACCGTAAACACTCGCGGCCCATCGTCAACGCTGT
GGGAGCGGGAGCTGCGGAAAGAGTGGAGGTGCAACAAATGAGAAATTCCAATTGGAGATT
TTGTCAAACAGGAATTTACTCCAAACCAACAGGAAGCTTACTTTTCTCTACCTAGCCAA
TGATGTCATACAGAACAGCAAGAGGAAGGGGCCAGAGTTTACAAAAGATTTTGCACCAGT
TATA

Sequence 1681

CCGGCAAAGCAGGGACTCCTGATTTATATGTCCCTCCTCCTGGCAATCCTCTCACCCAC
CTCCCCTGAGAACCTCAGTTCTTCTAAATTGCTAAAGCTGAGGGGAAAGGGATGCTTTG

TABLE 1

277/467

CGGCAAAGGCGCTGCTGCCTCAAGCTTGCTTTACATGCCTCTCTAGTTCCTCTCGCACTA
CAGAGTGGTAGCGAACAAGCGTTTCGCCCTAGAAGCGACCTGAATGGAAAAATCTGCAC
ACGAACTAATGGGTTTGTACGGAAGTAGGGAACCGGGTCTGCAGCATTCCCTGGAGAC
AGACTTTCTGGTTGGTTTCAAGGGTCCAAGGCAGCCATCAGCCCGGCTGTGCCCTCCCA
CCCTGCCTCCCACCCAGTTGATTCTCTCTTTGTGTAAGTTTAGCCCTCTGAGGGTGGTG
GAGTGAGAGCATCCCATCAGATATATACGATTATCAGTCGGCACTTAAAAAG

Sequence 1682

TCACNCGCGTCCGAAAAACGCAGATGATATACCTGCAACATCNGTCATGGCTGCGCCCT
GTGCTCAGAAGCAACCCGGGTGGAATATTGCTGGTGCAACAGTGGCAGGGCACAGTGCCA
CTCAGTGCCCTGTCAAAGTTGCAGCGAGCCAAGGTGTTTCAACGGGGGCACCTGCCAGCA
GGCCCTGTACTTCTCAGATTTCTGTGTGCCAGTGCCCCGAAGGATTTGCTGGGAAGTGCTG
TGAAATAGATAACCAGGGCCACGTGCTACGAGGACCAGGGCATCAGCTACAGGGGCACGTG
GAGCACAGCGGAGAGTGGCGCNCGAGTGCACCAACTGGAACAGCAGCCGCGTTGGCCCAG
AAGCCCTACAGCGGGCGGAGGCCAGACGCCATCAGGCTGGGCCTGGGGAACCACAACACTAC
TGCAGAAACCCAAGATCGAGACTCAAAGCCCTGGTGCTACGTCTTTAAGGCGGGG

Sequence 1683

CCGTCCGCTCCTTGGCAAGAACGAAAGGTGTGATGAAACCTCCCTGCTCGGAAGGGTCTC
CGTGGAGGTGTCTCATTTACATGCTGGGTTTTGCAAGCGAGGAAGCCAGGCAGTGGAG
GAACTAGAGAGAGGCAGGCGTGTGTGTGGACAAGCGCTGGAGCOGCAGCCCTCAGACTGG
CACGGGAACGCCAGCGTTGGGTGTTTCAAGTCCACGCGTATGTCTGGGCTCACTCACAGC
ATGGCCGAGTGTCTGCAGTGTGCTGCTGACCCCTCCAGAGCAGCAGTGGACAGATGAGA
TAAGACTGTTTCAAGAAACAAAGATGGCCACAGCCTTCTAACAAGCAGGTCTCTGGCCA
TGTCTGTATTGTAAGTGGTAAAGGCTTCAAGTCAGATTGATGATCAAGAAAANGTCAA
ACCCAGCCCAAGATTGGGAAAGCAGGTTNGTGGNTCCAANGCTTTTTAAAAAATTATT
TGAAGCTCTTCATTCTNTTCTGTGAGTGTGTCTTTCTCTT

Sequence 1684

NCCCATACTGGGGGCCCCCTTCTGTCAGGCCCATCAGGTGCAGAGCTGTGGGTCTGGTT
CCAAGACACTGTCACTGATGTGGATAAATCTTGAAGGAGCTCAGTAATGTCTCTCAGG
GATCTTCTGCGCCTCTCTCAACTTCATCGACTCCACCAACACAGTCACTCCCACTGCCTC
CTTCAAACCCCTGGGTCTGGCCAATGACACTGACCACTACTTTCTGCGCTATGCTGTGCT
GCCGCGGGAGGTGGTCTGCACCGAAAACCTCACCCCTGGAAGAAGCTCTTGCCCTGTAG
TTCCAAGGCAGGCCTCTCTGTGCTGCTGAAGGCAGATCGCTTGTTCCACACCAGCTACCA
CTCCAGGCAGTGCATATCCGCCCTGTTTGCAGAAATGCACCGCTGTACTAGCATCTCCT
GGGAGCTGAGGCAGACCTGGCAAGTTGATTTGATGCCTTCATCACGGGGCAGGGAAAGA
A

Sequence 1685

CCGCTGGTTATTACCCAGCTGGATGGTTTTCTTTTAGGCAAGAAGGAGGTATCAGCAGG
CTCCCAACAATAATGCCGAAGTTAACAATGATGGGCAAAATGCAAACAATTGGAACCTG
AAGAAATGGAGCGTCTTATGGATGATGGGCTTGAAGATGAGAGTGGAGAAGATGGAGGTG
AAGATGCCAGTGCAATTCAAAGGCCTGGATTAATGGCTTCAGCTTGGTCTTTCATCACCA
CCTTCTTTACTTCACTAATACCAGAGGGGCTCCCCAGGTTGCCAATTGACCTGAAAAAC
TGTGCCAGCTACAAGGAGGGTCTGACTTCAGGAAAGTGGTTTAAATAACAGTGCAATTTT
AAAAAAATTTATAACTTTCTTTTGTATCATCATGTACAGAGGTGTTTTTTTTCTTTAGGCT
TCTCATGCATATGAATATTTAAGCACGAATGGACTACTAAATATCTGAGTTTTTTTTT
TTTTTTTTTAAAGAATC

Sequence 1686

CGCGCCGGTTTGGCTGCCCTGCATAAGCTGCTACAAATAGAATAAAGAATTTATACGCC
TGATCTATCATTTAGATGCATGGAAAAAATGGGCTTTCACACAATGGGTTTGGAGCT
GACTGGGAACAATGGAAAAAATTACATTAGCTGTGGTTGTAAAGTTTTTTTGTGTTTGGT
TTTGTGTTTTTTTTCTTTTTCTTTTTTTTTTTTACCATCTTGTGAAAGGTTTCTGAA
ACTCGATAATAAAAAGCGGTTGGTGAAATTATCTTTTGTGTCACATTTTGAAGGAA

TABLE 1

278/467

AAACATAAAAGAATGTATCCTTAGTACTGGTTCTTAAACAGCCCATAAAAAACCCATTGGC
CTGAAGCTTATATCTCAGGCCTATGCCCATCTTATAGTCTTGGAAGACAAAA

Sequence 1687

CGCGTCCGTGGGTCTCGCCCTCAACCTGTGCATGTATATGTGTGTCTTTGTGTGTGTATG
TGTGATCTCTGCCTGCAGGACCAGCCCGGTGGCACCCCTGGATCTGACCCTGATCCGTGCC
CGCCTCCAGGAGAAGTTGTACCTCCCTACAGCTCCCCACAGGAGTTTGCCAGGATGTG
GGCCGCATGTTCAAGCAATTCAACAAGTTAACTGAGGACAAGGCAGACGTGCAGTCCATC
ATCGGCCTGCAGCGCTTCTTCGAGACGCGCATGAACGAGGCCTTCGGTGACACCAAGTTC
TCTGCTGTGCTGGTGGAGCCCCCGCCGATGAAGCCTGCCTGGTGTGCTTGGCCTGAAGTTTC
CCAAGGAAGCTGTCTGGTGGGCCCCCTTGGGTGATGGGCCCCCTTGGAGGGCTTGAAGCCC
CCCCATGGGCCAAGCCCCAGCCCTGGGCTTCTGGTTCNTCTTGTCCCTGGTCACCCCAT
CCCCACTCCCCCTTGGGTGGGCCTTGAACCTNCCACTTCCCTTGGGTGGGGCCC

Sequence 1688

AGGAGGNTTGAAGGAGTTGNNGGAGGAGGAGGATGGAGGCGAGGGCGAGCGAGCCCAGCG
GGGTCCNGGNCGCCCGCGGGCCAAAGTCGAGCCCTNCCGCCNNTGGGCGAGCGCGCCAG
CCGCCNNTTTCANAACAGTTCGNCGCCACAAAANAAAAGAACGGGGGGGTGCCGAGGTTN
CCATTGANCTCTTAAAGTGGTGCAGGTCCCTGTTGAGTGCGCTGCACCGGGCCGTGACC
CGCGCCCTGTGCGTCCC

Sequence 1689

GGAGTCGACCACGCGTCCGCGCCGGCCGCGGTGTCCGGACCGCTCGCCCCCGTTTGGAC
CCGACTTCGGTTCTTCTGGGGTGTGATGCTCCTAAAGCCCGAGAGCACGTGTCCAGACC
CTAGCCTGTACGACGCTGACTCTGCCCGGTCCAGAACCAAGCCATGCCGGGGTGTGGC
CTCTGACCCACGCGGAGGGGACCTCGCCTTGCGGGACCCACCTGGAACCCGACCTNCC
AGNCTCGCAGCCGGCCTGAGCCGCCATGCGCGGAAGTTGCTGCCGCTGGCCGGCCTATA
CCTGGTGCAGGGCCTGCCCTACGGGCTCCAGTCCGGCCTCCTGCCAATGCTGCTTGCCT
GCCGGCGGCCTCTCGCTGACGCGCGTGGGGCTGGCCAAGGTTCTGTACGCTNCGTGGCTT
GCTTCAAGCTGGCT

Sequence 1690

CNCCCCGCGTCCGCGGACGCGTGGGTGCTTGCTGCTGAACCTGAGCTGCAAGTTGGAATT
GATATAATGAAGACTAGTTTTCCAGGTGCTGGTTCAATTCAGAATTCTTTCATATTATG
AAAAGAAAGTTTACCAACAAAGAATGGGAAACAATCAGAAGCTTTAAGGATGAGTGGACT
CAGCTGGATATGTTTTATAGGAATTGGGCACTTAAGGAAAGCTTCATAAAAGCCATTGGT
GTTGGCACTAGGATTTGAATTGCAGCGGCTTGAATTTGATCTATCTCCATTAACTTGGAT
ATAGGCCAAGTTTATAAAGAAACACGTTTATTCTGGATGGAGAGGAAGAAAAAGAATGG
GCATTTGAGGAAAGCAAAATAGATGAGCACCATTTTGTTCAGTTGCTCTTAGGAAACCC
GATGGGATCTAGACATCAGGGGATGTTCCATCTCAGGATGATTCCAAACCAACCCAGAGG
GCAATTTACTATTCTCAACTTTAATGATTTAA

Sequence 1691

GACCACGCGTCCGCCCGTCCAGGAGCCCTAGGAGTGCTACGGGGGGCCGGAGCCTTGCCC
GGGCCGCTGCCCGTCCCTGGATTCCGGGGCTGGACGCAGCAAGCGGGGCGCTGTGTCCCC
AAGCTCCCCGTCTCGGCCAGGCGGGCACCGGAGGGGCTGAGCTACCCTCATGGAAG
GGAGAGGACCGTACCGGATCTACGACCCTGGGGGCAGCGTGCCCTCAGGAGAGGCATCCG
CAGCTTTTGAAGCGCTAGTGAAGGAGAATCCCGGCTGAAGGAAAAAATGCAAGGGATAA
AGATGTTAGGGGAGCTTTTGAAGAGTCCAGATGGAAGCGACCAAGGCTCCGGCAGAAGG
CAGAGGAGCTAGTGAAGGACAACGAGCTGCTCCACCACTTCTCCCTCCTTGGGCTCCT
TCGACCCCCTGGCTGAGCTCACAGGAAAGGACTCAAATGTCACAGCATCTTCCACAGCCC
C

Sequence 1692

ACAGAATTTAGGGGTGGGTGAAAGCACTTGNGCTTTAGCTNNTTTCATATTAAATATATAT
CTATATTTAAACATTCATGGCATAGATGATGATTTACAGACAATTTAAAGTTCAAGTCT
GTACTGTTACAGTTTGAGAATTTGTAGTATTACATCATTACATAAGTCATTTTAGTAACA

TABLE 1
279/467

GCCTTTGTGAAATGAACTTGTTTACTATTGGAGATAACCACTTAATNAAGAAGAGACA
GTGAAAGTACCATCATAATTAACCTAAATTTTTGTTATAGCAGAGTTTTCTTGTTTAA
AAAAAATAAAATCATCTNGAAAAGCATTGTTACAGTTAAATGTATAATGAAGCTTTG
CCAACCAGACTGGTGCTTAGCAACCAAATTTTTTTTTAAATAAAGCTTTATGGCAGGT
GGGTAAATAAGGTGGCCTTCAAATATATTGGTGTCTTGATGGAGAGTTNTTAGTTGAA
ATGAATGTGGGTCTTTCT

Sequence 1693

CGGTTAACATGGCCGTCACCGACAGCCTCAGCCGGGCTGCGACTGTCTTGGCAACTGTNT
TGCTCTTGCTCTTCGGCAGCGTGGCCGCTAGTCATATCGAGGATCAAGCANAAACAATTCT
TTATGAAGTGGCCNATCAACAANCTGGGCCTGTTCTTGGTGTGTACATCCCCGATTCTG
GTATTAATTATCGACATGTTGCAAATACCCTTTCTGTTTATAGAAGTGTCAAGAGGCTAG
GTATTCCTGACAGTCACATNTGCCCTAATGCTTGCAGATGATATGGCCTGTAATCCCTA
GAAATCCCAAACAGCTACAGTGTTTAGTTTACAANCAATNTGGAACATAATGGTGTAT
GGGAGAATGATGTGGGAAGGTGNNATTATAGAAGTTNTTGAGGTAAACNGGTGGGAGAA
NNNTTTTTTACCNGGGTAATTTAANCTGNGGGAGGGANTCCCCACCCTAAGTANCTTCC
TTCGGG

Sequence 1694

GTCCGCAAGATGGACGCAGCTCTCTGACCTACGACACTCTCCGGTTTGCTGAGTTTGAAG
ATTTTCCTGAGACCTCAGAGCCCGTTTGGATACTGGGTAGAAAATACAGCATTTCACAG
AAAAGGACGAGATCTTGCTGATGTGGCATCTANACTTTTGNTTTACATACAGGAAAAAC
TTTCCAGCCATTGGGGGGACAGGCCCCACCTCGGACACAGGCTGGGGCTGCATGCTGCGG
TGTGGACAGATGATCTTTGCCAAGCCCTGGTGTGCCGGCACCTAGGCCGAGATTGGAGG
TGGACACAAAGGAAGAGGCAGCCAGACAGCTACTTCAGCGTCCTCAACGCATTTCATCGAC
AGGAAGGACAGTTACTACTCCATTACCAGATAGCGCAAATGGGAGTTGGCGAAGGCAAG
TCCATAGGGCCAGGTGGTACGG

Sequence 1695

CCCCGCGTCCGCTCGNAGCTGTCCGCGGTCTGTTTGGCCCGAACGGCGGGCGGAGGCGCTG
ATCATGGCGACATTCATCTCGGTGCAGCTGAAAAAGACCTCAGAGGTGGACCTGGCCAAG
CCGCTGGTGAAGTTCATCCAGCAGACTTACCAAGCGGCGGGGGAAGAGCAGGCCAGTA
CTGCCGCGCGGCGGAGGAGCTCAGCAAGCTGCGCCGCGCCGAGTCGGTCGTCGCTGGA
CAAGCACGAGGGCGCGCTCGAGACGCTCCTGAGATATTATGATCAGATTTGTTCTATTGA
ACCCAAATTCCATTTTCTGAAAATCAGATCTGCTTGACATTTACCTGGAAGGATGCTTT
CGATAAAGGTTCACTTTTGGAGGCTCTGTAAACTGGCTCTTGCAAGCTTAGGATATGA
AAAGAGCTGTGTTGTTGTTCAATTGTGCAGCCTTAGCTAGCCAAATTGCAGCAGAACAAG
AACCTGGATAATGATGAAGGGATTGAAAATCGCT

Sequence 1696

TTCGGGAGTCGACCCCGCTCCGGGCCAGCCGGCTCGCCCGGGGGCCATGGCAGCAGCGG
CTACTGCAGCCGAGGGGGTCCCCAGTCGGGGGCCCTCCCGGGGAAGTCATTTCATCTGAATG
TGGGAGGCAAGAGATTCACTACCTCTCGCCAGACTCTCACCTGGATCCAGACTCCTTCT
TCTCCAGTCTTCTGAGCGGACGCATCTCGACGCTGAAAGATGAGACCGGAGCAATCTTCA
TCGACAGGGACCCTACAGTCTTCCGCCCCATCCTCAACTTCCTGCGCACCAAAGAGTTGG
ATCCAGGGGTGTCCACGGTTCAGCCTCCTCCATGAAGCCCAGTTCTATGGGCTCACTC
CTCTGGTTCGTCGCTGCAGCTTCGAGAGGAGTTGGATTGATCTTCTTGTTGAAACGTC
CTCTTCAATGTTACCTGCCGCCACCAAGTGTCCAGTGAAGCGGCGGAACCGGCACAGC
CTAGTGGGGCCTCA

Sequence 1697

CGTCCGAAGGAAGGAAGGGACGGGCTGAGTTCCCGACGAGAGACACACCCAGATTTCC
TGCAGCTTGGGGAGAGGTCCTCCAGGAGCCTTGGTCCCTCCTGGCCTGCCGAGTCCTT
AGCCAGGATGGAGGCTGTTGTGAACCTGTACCAAGAGGTGATGAAGCACGCAGATCCCCG
GATCCAGGGCTACCCTCTGATGGGGTCCCCCTTGCTAATGACCTCCATTCTCCTGACCTA
CGTGACTTCGTTCTCTCACTTGGGCCTCGCATCATGGCTAATCGGAAGCCCTTCAGCT

TABLE 1
280/467

CCGTGGCTTCATGATTGTCTACAACTTCTCACTGGTGGCACTCTCCCTCTACATTGTCTA
TGAGTTCCTGATGTCGGGCTGGCTGAGCACCTATACCTGGCGCTGTGACCCTGTGGACTA
TTCCAACAGCCCTGAGGCACTTAGGATGGTTCGGGTGGCCTGGCTCTTCTCTTCTCAA
GTTT

Sequence 1698

CGCGTCCGGCCGCGCCCATGGCCCGCCGCTGCCCGGCCGCGCGGGCGGGCCCGCCACGCC
GCTGTGCGCCACGCGCCTGTGCGCGCTGCAGGAGAAGGAGGAGCTGCGCGAGCTCAACGA
CCGCCTGGCGCACTACATCGACCGCGTCCGCGCGCTGGAGCTGGAGAACGACCGGCTCCT
GCTCAAGATCTCAGAGAAGGAGGAGGTGACCACGCGCGAGGTGAGTGGCATCAAGGCGCT
GTACGAGTCGGAGCTGGCCGATGCCCGGAGAGTCTGGATGAGACGGCTCGAGAGCGTGC
CCGGCTGCAGATAGAGATTGGGAAGCTGAGGGCAGAGTTGGACGAGGTCAACAAGAGCGC
CAAGAAGAGGGAGGGCGAGCTTACGGTGGCCAGGGCCGTGTGAAGGACCTGGAGTCCCT
GTTCCACCGGAGCCGAGGTGGAGCTGGCAGCTGCCCTCAGCGACAAGCGCGGCTGGAGA

Sequence 1699

ACGCGTCCGGAAGAATCTACACTTCTTTGCACCAGAGTATGGAGAAGTCACTAATGTGAC
AACAGCAGTGGACATCTACTCCTTTGGCATGTGTGCACTGGAGATGGCAGTGTGGAGAT
TCAGGGCAATGGAGAGTCTCATATGTGCCACAGGAAGCCATCAGCAGTGCCATCCAGCT
TCTAGAAGACCCATTACAGAGGGAGTTCATTCAAAAGTGCCTGCAGTCTGAGCCTGCTCG
CAGACCAACAGCCAGAGAACTTCTGTTCCACCCAGCATTGTTTGAAGTGCCCTCGCTCAA
ACTCCTTGCGGCCCACTGCATTGTGGGACACCAACACATGATCCCAGAGAACGCTCTAGA
GGAGATCACCAAAAAACATGGATACTAGTGCCGTACTGGCTGAAATCCCCCAGGCCCTGAT
CTGCGCTGTGGCTGTCCCTGGGACGTGCTGCAGCCCTCCTGTCCCTTCCCCCAGTC

Sequence 1700

GGGAGTCGCCCCGCGTCCGGATTTCACTTGGTGGCGTCATAGTCTCATTACAGTGTCTAT
CTTGGCATTACCAATTTACTTGTCTCTTTGTCCCACTATTAGGGATATCTTTGGTTT
TATTGGTGCATCTGCAGCTTCTATGTTGATTTTATTCTTCTTCTGCCTTCTATATCAA
GTTGGTGAAGAAAGAACCTATGAAATCTGTACAAAAGATTGGGGCTTTGTTCTTCTGTT
AAGTGGTGTACTGGTGATGACCGGAAGCATGGCCTTGATTGTTTTGGATTGGGTACAA
TGCACCTGGAGGTGGCCATTAATTGGCACCACCTCAAACTCAAACTCAGTCCATCTGATGC
CAGTGTTGAGTAACTCAACTACTATGAAATTTACCTAATGTTTTCACTTTCACTTCTT
TTTGAAGTGCAGATTCTCGCTGGTTCTTCTGAGTGCAGAATAAGTGAACTTTTTTGTTT
TGTTTTGNTTTTTTAAGAAAC

Sequence 1701

CCCACCGTCCGCGCGCGCGCCTCGCCTCGGCCGGCGCCTAGCAGCCGACTTAGAACTGG
TGCGGACCAGGGGAATCCGACTGATAAATTAACAAAGCATCGCGAAGGCCCGCGGCGG
GTGNTGACGCGANTGCGATNTNCTGCCANNGCNTCTTGAATGTCAAAGTTGAANAAANC
CAATGAAGCGCGGGTAAACGGCGGGAAGTAACTAATGACTTCTCATTAAAGGTAGCCAAA
NGCCCTTCGTCATCTNAATTAAGTTGGACCGCGCANTGAAATNGGATGAAACCNAGANTT
CCCACNTGTCCCTACCTACNTAATCCAAGGCGGAAAACCAAGCCAAAGGG

Sequence 1702

CGACCACGCGTCCGGACAGATTGATAGCTCTTTCTCGATTCCGTGGGTGGTGGTGCATGG
CCGTTCTTAGTTGGTGGAGCGATTGTCTGGTTAATTCGATAACGAACGAGACTCTGGC
ATGCTAACTAGTTACGCGACCCCGAGGTGCCTGACCAGTTCTACCGCCTGTGGCTATCCC
TCTTCTGCACGCCGGGATCTTGCAGTGCCTGGTGTCCATCTGCTTCCAGATGACTGTCC
TGCGGGACCTGGAGAAGCTGGCAGGCTGGCACCGCATAGCCATCATCTACCTGCTGAGTG
GTGTCAACCGCAACCTGGCCAGTGCCATCTTCTGCCATACCGAGCAGAGGTGGGTCTGT
CTGGCTCCAGTTTCGGCATCTGGCCTGCCTCTTCTGGAGCTCTTCCAGAGCTGGCAGA
TCCTGGCGCGGCCCTTGGCGTGCCTTCTTCAAGCTGCTGGCTTGTGGTGTCTTCTCTT
CACCTTTGGGCTGCTGCCGTGGATTGACAACTTTGC

Sequence 1703

TABLE 1

281/467

GATCGACTTCGCCTGACGGAATCCAGGGGTCGTAATATATGTAACTCGCGTCCGNGCTG
CGTGCCCGAGTAGTGGCCGAATACCTTAACGGGGCTGTGCGCGAGGAGAGCATCCACTG
CAAGTCGGTCGAGGAGATCTTCGACGCTGGTGAGAANCTGGCCGACCAGTCGGGCTTGG
ACGTGATCCGCATTGCAAGCCCTTCCACACANGACAACCACTAGCATTGAGGGCCAGTA
GGCACCCCTTACCAACAAGCTTGACCACGTGTCCCGCGGAACTANCGCACCCCCGAGNA
GGGTTCAANGNATTCCTTGACCCAGCCCAGATGCCCTGGCTTNTGGGGGNGCAAGTGAC
CCTTTGTGNAACCCACTCATTTTTTATGGCAAGGTGAGCATTNCCTAAAAACCTTGAAA
AATGANGGGAANAACCTTCAAGGGGTTTTTACAGGGCCCTTGGTTTTTTTAAATCCC
CAANATTTGGATAATAAATGGAATCCTCAAAAACACAAGTGGAGGAAGGNTCTTGAAAGG
GC

Sequence 1704

TCGACCACGCGTCCGGCCGGAGAACTTGAGCCGGCTGCCCCGCCACGGTGCCCGAAGC
CCCAAAGGCTGGAATTAGGGGCTAGAAGTCTGGCACCCACCGCTGGCCAGGTGTTGGG
ACGCGACCAGGTGGGCGGTGCCCCGCCCGGGAGCGCGGCTTAATAGCTGAGAGCCCGG
GGGCCAGGCCGNGGCTGCGGCCAGGCAACGCCCTGAGGGTGGCCACGCTGNCAGGTGTT
CCACTCCCCCGGACTATGGGCAAGGGCCCGGGGCGGGGAGGGCGGCAGGTGCTGACACT
GGAGCTGCGCCGGAGGTGCGGGAACCTCGGCCTCCTAAGACTGAGGACACTCGCCTGCTGG
GCCGNGCAGCTGTGCGGTGCCCTCCGGACGCGAGGGGGCGCTGCAGCCACGCTGGGTCA
GGCTCCGAAGGGCCCTCCCAACCCGGGGA

Sequence 1705

CGCCACGCGTCCGGAAAGATGGAGGTGTGGGGACAGGAGCTGGGTGTGCTGGGGACTGGC
CGCGGACCCCTAACCTGTGTCTCCGGTCTCCCTCCGGGAGCGGCTCAACCCAGCCCATCG
CTCTGGCCCCGTTCTGGCCCTGCAGGGTGGTGGTTGGGACGTTGAAATGAGCGCGGAGT
GGTACGTCTCTCTCCGCGCTCACGCCCCCTCCTACCGTGTTCGCCAGGACCATC
AGCACGTGCCCATCGACATCCAGACCAGCAAGCTGCTCGATTGGCTGGTGGACAGAAGGC
ACTGCAGCCTGAAATGGCAGAGTCTGGTGCTGACGATCCGCGAGAAGATCAATGCTGCCA
TCCAGGACATGCCAGAGAGCGAAGAGATCGCCAGCTGCTGTCTGGGTCTACATTCATC
ACTTTCACTGCCTAAGAATCCTGGACCTTCTCAAAGGCACAGAGGCCTTCCACGAAGAT
ATTTTGGC

Sequence 1706

TCGCCNCGCTCCGCTGAAGCAAGAGAATCACTTGAACCCAGGAGGTGGAGGTTGCGTGA
GCTAAGATCGCGCCACTGCACTCCAGCCTGGGCGACAAGAGTGAAACTCCGTCTTAAAAA
AGCCCATGGCAGGCTGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCA
AGGTGGGCGGATCACAAGGTCAGGAGATCGAGACCATCCTGGCGAACACGGTGAAACCC
GTCTCTACTAAAAAAATACAAAAAATTAGCCAGGCGTGGTCTGGGCACCTGTAGTCC
CAGCTACTCAGGGGGCTGAGGCAGGAGAATGGCGTGAATCCGGGAGGCGGAGCTTGAGG
GAGCCGAGATAGTGTCACTGCACTCCAGCCTGGGTGACAGAGCGAGACTCCGTCTCAAAA
AACAAAAAGCCCGTGGCAATTAATGGTAAAGGAAACCCGGCTTTTAGTGTAAGAGGTAA
CATAA

Sequence 1707

GCGTCCGGCCTCCAGCAAAGCCCATTGAGTCAGCTCTGCAGGCTCATCTTACAAGAATAA
TCCCTTTGCCAGCTCAATCTCAAACATGGGGTTTTCTTCTGGCAGCTCTTCTCGGGAGG
AACACCAGTCCAGAGTTCTGTTTCTGGGAGCCTGGTCCCTGGCATACAGCCTCCCTCCGT
GGGACAGGCCACCAGCCGACCCGTCCCAAGTTCAGCAGGGAAAAAATGCCTGTTTCCCA
GAAGTTGACTCTGGTAGCCCTCCAGGCGGTCCAAACGGAGATTCCAGTGGTGGGACCCA
GGGGAGTGGCAAAGTTGCTGACCTCGCCGTCCCTAAAGCCCTCTGCAGTTAGTAGTGTGA
CATCGTCTACCTCCTTGTCAAAAGGAGGCGAGTGGGGACTGTGCTGCTGGCCGGCTCCTC
TTTGATGGCTTTACCCTACAAATCCAGCAGCCCAAAGCTGTCTGGGGCCATGAGCTCGAA
CTTCTTGGGAAATTATAC

Sequence 1708

CACGCGTCCGGGAAGCGGTGCGCTCCGTCAACACGGGAGTGCGGGAATCCGCCGTTTGGC

TABLE 1
282/467

CTGAGGCAATGGCGGCAGCTGCGCCGGTGGCCGCGGACGACGATGAGCGGCGGCGGCGGC
CGGGGGCTGCACTGGAGGACTCCCGGTCCCAGGAAGGGGCAAATGGTGAGGCCGAGTCAG
GTGAGCTCAGCCGGCTTCGGGCTGAGCTGGCAGGCGCCCTGGCAGAAATGGAACCATGA
AGGCTGTGGCAGAGGTGAGCGAGAGCACGAAGGCCGAGGCTGTGGCTGCGGTGCAGCGGC
AGTGCCAAGAGGAGGTGGCCTCGCTGCAGGCCATCCTGAAAGACTCCATCAGCAGCTATG
AAGCCCAGATCACCGCCCTGAAGCAGGAGCGACAGCAGCAGCAGCAGGGACTGTGAGGAG
AAGGAGCGGGAGCTGGGCCGCTGAAGCAGCTGCTGTCCCGGCCCTACCCCTGGA

Sequence 1709

CACGCGTCCGCGGACGCGTGCGGTCCGCGGCGGCGTCCGGGGTCTCCAGTAGGGCTGACGC
TCCGGTGCTCGCACAAATCCCCCGCTCGGCTGGCAACGGGCGTCCCTCCACTCCCCGAGT
CCCCGGCAGCCGCCGCCACCCAGCGCGCCCGATCTGGCCCCCTGCCCCGCGAAGATGG
CTGCCGTACGCCGGGCCCCGAGTTATTGCCGCTGCCTGGTGCGCTTCTCCGACCGAGAAC
TCTGCTAAGCTCCGCTGCAGAGACAGGCAGGAGTAGACACCCGGACACCCAGCACCCCTC
CTTCGGGGGGCGGTGCAGAGGGGGGCACGGAGAGCCCTCGAGCGCAGCAGGCCGCCCGC
CAGCATGGCAGAAGCTGAGGAAGATTGTCATTCTGATACTGTCAGAGCAGATGATGATGA
AGAAAATGAA

Sequence 1710

ACGCGTCCGGCGAGTGCCCTTCCCGGTTGGCGCGCGCCCGGGGCGGCGGCGCTGGAGGAG
CTCGAGACGGAGCCTAGTTATGTCTGGGAGGCGAACGCGGTCCGGAGGAGCCGCTCAGCG
CTCCGGGCCAAGGGCCCCATCTCCTACTAAGCCTCTGCGGAGGTCCAGCGGAAATCAGG
CTCTGAATCCCGAGCATCCTCCCTGAAATCTGGCCGAAGACACCCAGTGCGGCTGCAGT
CAGAAAGCCCATCGTCTTAAAGAGGATCGTGCCCATGCTGTAGAGGTCCAGCTGTCCA
ATCACCTCGCAGGAGCCCTAGGATTTCTTTTTCTTGAGAAAGAAAACGAGCCCCCTGG
CAGGGAGCTTACTAAGGAGGACCTTTTCAAGACACACAGCGTCCCTGCCACCCCCACAG
CACTCCTGTGCCGAACCCTGAGGCCGAGTCCAGCTCCAAGGAAGGAGAGCTGGACGCCAG
AGACTTGGAATGTCTAAGAAAGTCAGGCGTTCTACAGCCGGCTGGAG

Sequence 1711

CNCGCGTCCGAAGGCACAGGCGTCTTGCTCTGTTGAAGCAAGTCAGTATCCGAGAAAAT
GCTGTTCCCTTTGTTGTGATGAGGTAGCAGACACACAATTGAAGCCATGTGGACACAGTG
ACCTGTGCATGGATTGTGCCTTGACGCTGGAGACCTGCCATTGTGTCTGTAAGAAATAG
TATCTAGACTCAGACAGATTTCTCATATTTTCATGACACATGTGAAGAGGCATCGTGGACT
TTTTCTACTCAATTCAGCCAATGTTGAAAAGAAAAAGAAAAAAACTCTAATCAGT
TGACACACATTGAACTTATAGCCATGGCCAGATTTTATGCTAAAAATGGTAGTTTGTG
AAAGACAAAATTCTCTTAGAATCTAATCCAATTGCCAGCCCTGAGAAAAATCCCTTTTAA
GGCCAAGGGAAAGCTGAATGCTAGCAGCCAGGCCTGTGGTACTTCCATGAGAAACCATAG
CAGGACAATGCCCTC

Sequence 1712

CCACCGTCCGGGCGGCCAGAGGTGCGAGAAGGCCGAGGAGAAGGCCAAGGAGATTGCGAA
GATGGCAGAGATGCTGGTGGAGCTGGTCCGGCGGATAGAGAAGAGCGAGTCGTCTGAGC
GCGGTGCGCGGTTTCCAGCCAATGGATTCTGGTCAACTGGTGGAGATTGGCTGACACCCT
GGAGAAGCCGAAACCAGAGAGCCTTTTGTCTCTCTTTTCTCTGTCTATGCTCTGTCTC
ACTTAACACTACGTTTTCTGCTATGGTCTGTGGTTGATGACCTCAATATGAGTTTCGATT
GTTAACCGTGTTTTGTTGGGAAGTAATTTTGTGTTGAAAATGCTCTCACATACAGGAAT
TAGGGCCTAGATTGTAAGCTCTTGACAGCAGTCACATTTGTTCCCGGGCTTTGGTGGTTAT
TTTCTAAATTTTGAGGTGCCTTTGCTATTTCTTGTTGTGACCTGATAGCTTCCCCTG

Sequence 1713

GCGTCCGAGCCTCTGGGGGTGGATCCTGAAAGGTGGTCCAGCCGCCTGGCCCTGCGTGGG
ACCCTCCACCTGGCAGCAGGGTCTCGCTCTGTACACAGGCTGGAGTGCAGTGGTGTGAT
CTTGGCTCATCGTAACCTCCACCTCCCGGGTTCAAGTGATTCTCATGCCTCAGCCTCCCG
AGTAGCTGGGATTACAGGTGGTGACTTCCAAGAGTGACTCCGTCGGAGGAAAATGACTCC
CCAGTCGCTGCTGCAGACGACACTGTTCTGCTGAGTCTGCTCTTCTGGTCCAAGGTGC

TABLE 1

283/467

CCACGGCAGGGGCCACAGGGAAGACTTTCGCTTCTGCAGCCAGCGGAACCAGACACACAG
GAGCAGCCTCCACTACAAACCCACACCAGACCTGCGCATCTNCATCGAGAACTCCGAAGA
GGCCCTCACAGTCCATGCCCTTTTCCCTGCAGCCACCCTGCTTCCCGATCCTTCCCTG

Sequence 1714

GTCGCCACGCGTCCGCAGAAGATTGACAAATCTGAGGGCCGCTTCCATGTCCAGAACCTT
AGCCAGGTGGAGCAGGATGGGCGGACGGGGCATGGACTCCGCAGATCTTCCAAGTTCTGC
TTGAAGGAGCACAAAGCCCTCAAGACGTTAGGCATCATCATGGGCACTTTCACCCCTCTGC
TGGCTGCCCTTCTTCATCGTTAACATTGTGCATGTGATCCAGGATAACCTCATCCGTAAG
GAAGTTTACATCCTCCTAAATTGGATAGGCTATGTCAATTCTGGTTTCAATCCCCTTATC
TACTGCCGGAGCCCAGATTTAGGATTGCCTTCCAGGAGCTTCTGTGCCTGCGCAGGTCT
TCTTTGAAGGCCTATGGCAATGGCTACTCCAGCAACGGCAACACAGGGGAGCAGAGTGGA
TATCAGTGGAACAGGAGAAAGAAAATAAAC

Sequence 1715

CCCCCGTCCGCTTTTGTTNATCTAAAGGCTTNAGTCCCATTTTTTTATACGTTGATTTT
AAAAACGTTTGAAAGGAGTCTTACACCTGTATCATGAAAACCTGAATCCTTTTGAAATACC
ACTATATGAAGAGAGAGATGAAATTTAGTGAACAGAATTGGAAAAGGTGCTCATAATTC
ACTATGCAAACCTTACCCAGTCTCTAAAAAAGTAATTTAGATTTAAAGTTCTTTGATGTA
TTTGATTTTCTAAATCTTTATGGTTATGATTTGGAATAAAATGTGCCTAATCCTGTGTTA
CATTCTGTTCTTAAATCTGAATGCCTTCTCATTTAATTCTGAGGAAATATCACACAAGTG
TCTTCATTGACCTTGAAGAAATGTATATACAGTTGCCTTATAAAACAACATAAATTTAGA
CCATAACTTTTATAGAGAAAGGGTTTTGTCAAATGTTTTCTGAAAATCTGAGTAATTCAA
AGCATGCCTCTGCCCCCTTAATA

Sequence 1716

NGTCGCCACGCGTCCGGCGCTCTCGGCCGCCGCCGCTCTGCGTGGGCCGGCCGGGAGGG
CCTCGGGGGACTGACTGACAGAGTTTCACTCCTGTTACCCAGGCTGGAGGACAATGATGT
GATCTCGGGTCACACAAACCTCCGCCTCCCGGATTCAAGCGATTCTCATGCCTCAGCCCTC
CCGAGTAGCTCAGATTACAGGCATGTGCCACCACGCCCGGCTAATTTTGATTTTCAGTC
GAGACGGGGTTTTCCCATGTTGGTCAGGCTAGTCTTGAATTCGGACCTCAGGTGATCTG
TTCGCCTCGGCCCTCCCAAAGTGCTGGGATTACAAGGCGTGAACCACTGCACCCGGCGAGG
CATTTTTTACTGTCTACAGAACTTATTGTAATTCATTTTTCTCACTCCAAGTAGTAAG
AATTATACCAAATTGAAAAGATATGAATGAGTATCCTAAAAAAGAAAAAGGGA

Sequence 1717

CCGAGGCNCTGATAAGCCNTGGTAACGGGAAACACAGCTCTAACCTCACCTATTCTCCA
GGTTACAAAGGCCATGTGCCCTTTGAATCTGGCAGAGAAAGTTTCTCGTTGTAAGTAT
TTGCATCTACTTCAAGCCAGATTCTTCTGCCTCTTTCTCCTTCCAGACCCCTACTCTGT
GCAGTGCTGACCACAGCTAGAGCCACCGCCCATTTGCTCAACCAGTATTTATTTCCCTAA
ACGACCCTTCTCATATTCCCTTCCCTCCACCTCTCCTTACCAAGCACCCAAAAGAGGAT
TTAGAACTAGCAGGGTGGACATCATTCTGGTTGTTTCTACTTTTCTCTGCCTAGCACAAA
ATTGGGAGAAAACTGGAGCCTCCATCCGCAGTCACACGTGTACAGATCTGGGNGATTGG
ATGTAGGCTTTTTCTAACTTCTCTCTCAGAAGCTTCTACA

Sequence 1718

CGGACGCGTGGGTGCCGCCGCCGCCGTCGCTGTCGTAGTCGCCGCCGCCGCTGCCGGAGA
AAGAGCAGGAGCGGGGAAGCCCCAGAGTGAAATCTAGCATCCTGCCGGCTGGTCTGCCCG
CCCCTCCTTCTTTTCCCCCGGCCCNCTCCCTCCCNCCGCAGGTGCCATCCGTCGCC
ATNCGCCTCTCTACCCTCNATCCCCAGGTGAGGGGGGTGAGTTCAGGAAGCGGNNACCC
CNAGGAACCCANAGGGTCAACATTTGCAGCGCAACATGGCAGGAGCTGGAGGAGGAAT
GATATTCAGTGGCGTTTTTTTTCAGGTGAAAGGAGCAGTATGATGATGATGTAGCAGNAAG
CANGATATNATTTCTACAGTANAATTTAATCNTTTCTGGGAGAAATTCTAGCAACANGAA
GATAAAAGGTGGGTAGAGGTTGTCATTCTTCAACAGGGAGCAGGGAGAAC

Sequence 1719

TABLE 1

284/467

TCCGGCCGGCCAGCGTCATCACCATCGTCAAGTCCACCCCGGGCTCGGGGTCTGGCCCCG
CCCACGGNCCGGACCCCGNCCACGGCCCGGCACNGCNGCTCCTAGTGCCCCGCCCGCCA
TGCTCANCCACGCCCCACCGGCCATAGNTNCCCTCCCCAAAGNCGNCTGAGGCGCATG
NCTTCNTGNGACNCAANGNTCCCATNTCTATTGCAGGCAACATGGCCATTCCCCGAAAC
TAAAAAGCAGTTGGGGNNGGNGAAAGTACNANGTGGAAAACCCAGNNATCACCGGNANTG
GNGGGAAAACAANGGCCNGNAGGGACACATTTCCAACTTTAAGCTGGGCNAGTGNNTGGG
GAACCAAAAAACCTGGGGNNGNCCCNTCANTGGCANGGCCCNTGAGNNCNCAGCNCATGN
GCATTTNCAGGGGNGAACCAGNNGGACAAGGGGGACCTCAANAAAAATGNTGGNTGGGG
ANGGGCCANTCNCTGGGCNNGGGGAAGAACCCGNATTCTACNAGCAAAAGGGGGANGGG
GGGGACNCAGCAAAGGCAATCANGGGAAGAAGGAAGATAAGGGTCNACCANCGGGAATNG
GCAAAGAAANGGGGGAA

Sequence 1720

CTGANGCTCGTTTTCTGAAATTAAGCTTCAGAGGGAAGCCCGNGAAACACAGGAGAGCG
AGCGCAAGCCCCACCATACAAGCACATCAAGGTGAATAAGCCTTACGGGAAAGTCCAGA
TCTACACAGCGGATATTTGAGAANTCCCTNAGTGCAACTGCAAGCCCACAGATGAGAATC
CTTGTGGCTTTGATTGGGAGTGTCTGAACAGGATGCTGATGTTTGAGTGCCACCCGCANG
TGTGTCCCGCGGGCGAGTTCTGCCAGAACCAGTGCTTCACCAAGCGCCAGTNCCCAGAGA
CCAAGATCATCAAGACAGATGGCAAAGGGTGGGGC

Sequence 1721

CATGGCTTCTGCGAGAAAAGTGATTTAGGCAGACGGAGGTTTTTTCTCAATCAGAGGCTT
TCAGTAACTCTGCTGATGCACAGAGAAGAGACTTCCTCAGCCTGCAGGCTACAAGAGCCA
ACTGTTAGTGCAAAAAAGGACTTTAATACAAATTTCTTATTCCAGAAATTTTGTCCAGG
TCTGGACAAGCTGAGAAATTTATCATTGTTTTTCGAGTTTTTAAGATACCCACTTTTTCT
GAGAGGTATGGGTGTGTGTGCAAGGCACACACATACAGTCTTTCTGTACATGCATGCATA
TTTATGCATGTACAGGGAAGTATCCAGACACCAAATTTTAAATAAATGAATTCCCCAAA
GGGGAGTCTTGACCTGAATTAAGGCTGTTGTTTATAGGGAAGCCAGATATAATTGATGNT
GAAAAANAACTAATTTTTATACTTAATCACCGGCAGNTANCGGGGGCANGGGGGAAAAA
GTACAGANGGGGTGTATTTTTTGGTTTTTTCT

Sequence 1722

TCGCCACGCGTCCGCTCTTAACACAGAGTCTGCAGCCCCTAACTGACACCCTGTCTTCC
TCCTAGCAAGTCTGGACTCCCTGGTCAGCAATGTCAACATTGAGCTGCTCAATGCCCTC
CGCTACCATATGGTGGGCAGGCGAGTCTGACTGATGAGCTGAAACACGGCATGACCCTC
ACCTCTATGTACCAGAATTCCAACATCCAGATCCACCACTATCCTAATGGGATTGTAAT
GTGAACTGTGCCCGGCTGCTGAAAGCCGACCACCATGCAACCAA

Sequence 1723

ATCCGGTTCGCCCCNCGTCCGGGCGGCGGAGGCGGAGGCAGCGGCGGCGGGATGGCGGAC
GCCAACAAGGCCGAGGTGCCCGGGGCCACTGGTGGCGACAGCCCGCACCTGCAGCCCGCA
GAGCCGCCGGGCGAGCCGCGGCGAGAGCCGCACCCCGCGGAGGCGGAGAAGCAGCAGCCG
CAGCACAGCAGCAGCTCCAATGGCGTTAAATGGAGAATGATGAATCAGCAAAAGAAGAG
AAATCTGACTTAAAGGAAAAATCTACAGGAAGTAAGAAGGCCAATAGATTTTCATCCTTAT
TCAAAGACAAGAAT

Sequence 1724

GTCGCCNCGCGTCCGTGCTTTTTTCGACATACTGGTTTTTCTTTCTGTTTTCTTCTCT
TTCTTCTATTTCTTGTGGATATTATGGCTAATAACACAACAAGTTTAGGGAGTCCATGGC
CAGAAAATTTTGGGAGGACCTTATCATGTCTTCACTGTATCCATGGCAATCGGGCTGG
TACTTGGAGGATTTATTTGGGCTGTGTTCAATTTGTCTGTCTCGAAGAAGAAGAGCCAGTG
CTCCCATCTCACAGTGGAGTTCAAGCAGGAGATCTAGGTCTTCTTACACCCACGGCCTCA
ACAGAACTGGATTTTACCGCCACAGTGGCTGTGAACGTCGAAGCAACCTCAGCCTGGCCA
GTCTCACCTTCCAGCGACAAGCTTCCCTGGAACAAGCAAATTCCTTCCAAGAAAATCAA
GTTTCAGAGCTTCTACTTTCCATCCC

Sequence 1725

TABLE 1
285/467

AATNTGCCAGCCTTTATTGAGCTTTACAACCTGATAGTTGGCAGTTAATTCAC
AGTTACAGATAATGCTTTTATTACATAAATATACCAAGTAGTACCCTCTTATTGTATTC
ACTTCATCTATTTTCTTAGAATACTTGCAATTTCTAATGACCCCTTCCCTTTCCTCCTG
CTGCCCTGTCCACCCTCTTCCCCTTCTAACATCCTTAGAGGGATGAAATCTCAGCATAT
GTTGCAGGACACCAAAAGGAAGAAAACAATCAAGCAAATAAAATAAACAGTCAAACAAAC
CAGGAGTTTAAAACAACAACCCCAACAACAGAAGCCTTGGCAAAGAGGAATGAGTGATCA
GCAAGTGAACACACTCTATGTCAACTCTCCTTTTATCCAGCTGAGATTTTATGGTAACC
TTTAATTTAA

Sequence 1726

CCNCGCGTCCGGAGCCGAGAGTGTGTGGAGCAGTTACAGCTGGAAGACCGGGTCCTCTGC
CTCCACAGTAGATGGCTGAATCCTCTATGCCGGGACTGGCAAATGGCACTGTGGTCACCTT
CAACATAAAGAACAACAAACGACTTGAGATCTTTGAATGCCATGGCCCTCGGGCAGTCAG
CTGTCTTGCTACAGCTCAGGAAGGTGCCGAAAACCTGCTGGTCTGTTGGGGTCTTATGACTG
CACAATTAGTGTACGCGATGCCCGGAATGGACTGCTCCTCAGAACTCTGGAGGGCCATAG
CAAAACCATTCTTTGCATGAAGGTGGTGAATGATCTCGTGTTCAGTGGCTCCAGTGATCA
GTCAGTCCATGCTCACAAACATTCACACTGGTGAGCTCGTGCGGATCTATAAAGGTCACAA
TCATGCAGTGACTGGTGGTGAATATCCTAGGAAAAGTGATGGTGACTGCTTGCCTGG

Sequence 1727

CNCGCGTCCGGATNAATATTTTCATCCCTGAGGTTAACAATTACCATCAAAATGTTTTGT
GGAGACTATGTGCAAGGAACCATCTTCCCAGCTCCCAATTTCAATCCATAATGGATGCC
CAAATGCTAGGAGGAGCACTCCAAGGATTTGACTGTGACAAAGACATGCTGATCAACATT
CTGACTCAGCGCTGCAATGCACAAAGGATGATGATTGCAGAGGCATACCAGAGCATGTAT
GGCCGGGACCTGATTGGGGATATGAGGGAGCAGCTTTCGGATCACTTCAAAGATGTGATG
GCTGGCCTCATGTACCCACCACCACTGTATGATGCTCATGAGCTCTGGCATGCCATGAAG
GGAGTAGGCACTGATGAGAATTGCCTCATTGAAATACTAGCTTCAAGAACAAATGGAGAA
ATTTTCCAG

Sequence 1728

TCGACCACGCTCCGATCCTGGATCTGGAGAGAGAGCTCTCCAAGCAAATCAACGTGTGC
CTCTGAGOCAGATGACGGGGTGGGACCCCGTTAGTAAGGACCGGGCGCCAGTGGCTAA
GGCGGTGCCCTGGTGACCAAGGAGAGCCAGACCTGTTGCTCAGGCCGAGCTCTGGTTGC
CAGCGAGTTACCACGGGACCAAGTCGCGTGTATGGCTGAGACTCATTCCAGTTTCCAGGG
CCCGGTATTTGGACACTAGTTGCCAAGTCTGGGGCCTGGGGATTTTAGGGACCAGCGGTT
GTGACCATCTTCTGAGCACCAAGGGCTTCCCCTTTTGTGCCCCAAAGGAGTAGTTCTCG
CGCTTGCTAGGCTGGCCTCTCTTGCCCTCCCCTTGGCCGGGGC

Sequence 1729

TCCGAAACACCTGTCATTTTACACAAATGCGTTTTGAATGTCTGAAAGACAGCTCCTGCC
CTTAATTTAGATGTAAACCATTTAGTTTCAAACCTAACCACTGATAAAATCTATCAACAT
TTTATCATGAAGTAGAGCAGATGTCTGTTATTTGATGTCTATGTTATTTGAGTTTACTGT
TTAATAAGTGAATTCATATCAATTAATCCTGCTAACAATTTGACACTTAAGGTGATTCT
GAAAATCCTTTAACTTAAAGTAGATGGAATCTTAAGTATGGGGCCTTTTGTGTCCGTA
AAGAAAACTGCATGCAACAAAATATAGCAGGTCTCACTTGTGAGATTATGGAAT
GTGACTTTAAATGAAATGACATGGCTGGGCATGGTGGCTCACACCTGTAATCAGCACTT
GGGAGGCCACGGCGGGTGGATCACGAGGTGAGGAGTTCAAGACCAGCCTGGCCAACATGG
T

Sequence 1730

CTGNGAGTTAAATTGGTCCAGAAACAGTTATGACCCTCTTTATACTGCCAAGAAATACGC
AGTCCCAGCCTTGGGAAGCACACTGTGTAGAATTTCTACCAAACATCTTAGGGCAGATAA
TGCCCTTATGTTACTTACTCAGGCTCGATTATTTGATGAACCTCAGCTTGCTAGTCTTTG
TCTAGATACAATAGACAAAAGCACAAATGGATGCAATAAGTGACAGAGGGTTTACTGATAT
TGATATAGATACACTCTGTGCAGTTTTAGAGAGAGACACACTCAGTATTCGAGAAAGTCG
ACTTTTTGGAGCTGTTGTACGCTGGGCAGAAGCAGAATGTCAGAGACAACAATTACCTGT

TABLE 1
286/467

GACTTTTGGGAATAAACAAAAAGTTCTAGGAAAAGCACTTTCCTTAATCCCGGTTCCAC
TGATGACAATTGAGG

Sequence 1731

ACCCCGCGTCCGAGCAGCCTCCAGTTGCCCTACTTAGTGGCTTGCCCTCTGCCTGCCTC
AGCTGCTGCCTGACCGGCTGGGGGAGGCACTGGCGGGAGGCCTCGGGCTCCCCTGGAAGG
GCGCTGGGCTGGCGGGTCAGCTGGTGGTTCTTAGGTTTCCTTCTGTTTGTTAAAAGGGAC
AATGTGGCCACTTCTCTGTGGAAGGGAGTTGGTTGGGGGGTTGAGATGGCCCGTGTTCA
TAACTCAGTTTCCTGTTTTGCACGATGTAAAACCTGTCTTTTGCACGATACAGCCAA
AAGTATTGGCTGATTTCTTGCTGAGTGCCCTCTTAGTTGGTGTGTGAGGTCTTGGTGGG
TCAGGCCAGCTGTTTGCGAGTGTGGGAACTCATAGGTTCTGTCTTTGTCTCTTCTTCA
CCTCATTCTGGTAGCAGCATAAAGGTTAGGCAATCACTGGGACCC

Sequence 1732

GCAATCATACATTGCATTCCCCAAAGCATCTGAACGTACTTCTAGAAAACAAACCAACC
AAAAGGGAAAAATATGCATGCTTTTTGTAATTAAGTGGTCTTTGAAAATCTTTTTTAAGG
GAGAAAAATCTCAACCAAAGTTATGCTCATCCAGACAAGCTGACCTTTGAGTTAATTTCA
GCACAACTCATTCTTCAGTGCCTCATGACTGAAAACAAAAACAAAAAAGAAAGCATCT
TCNCAATGAAGCTTCCANATAGCACCGTTTTGCTAAAAGATACATTCTCATTGTTTTCCA
ACAGNGATGGCTTCCACATAANGGTTAAACAACTGGGNGCTTGGAATAATTTNTNACN
GGTACTTNTTCGATTTTTTTNGAACNAAGGAAAANGGGATTCCCTTTTTTTAGGGGGGAA
GAATTGNGGNCAAGTTTAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Sequence 1733

CGCGTCCGAATTTAGGAAGACCCCGGCGACCTGTTCTCACCCCGCTTCGCCCTCACAC
TTTCGGGATGTCTGCGATTCCCTGCTGAGGAGAGCGACCAGCTGCTGATCCGACCCCTTGG
AGCTGGGCAAGAAGTAGGAAGATCATGTATTATTCTCGAGTTCAAAGGAAGAAAAATAAT
GCTCGACTGTGGGATCCACCCTGGCCTAGAAGGAATGGATGCTCTTCCTTATATTGATT
AATTGGACCCACCTTGAATTGNACCTCCNANTAANTNANNNCATTTTCATTTTGAANC
NTGGGGGGGCGNTNNCCCCNNGGTTTTTCNNAAAAANNCCCTTNAANGNNAAAAAATT
TTTTNTTTTTNTCCANAAAAAATTTTTTTNNAAAAANNCCCTTNTNTNTTTTTNAAAAA
TNAAAAAATTNCCCCAAAAAANNNNCCCCCTTTNTNTNTTTTTNAAAAA
AAAAANATNGNCCCCNNAATTTTTTTTTTATTTTTTNANNAANAANNTNTTTTTTN
AAAAANTNTATNTTTTTTTTCNNTNNANNNGTGNNNNCCCCNNNTTTTTTTTTTT

Sequence 1734

CCACGCGTCCGCTCCCGCCAGGCGCTTCTCGGACGCCTTGCCAGCGGGCCGCCGACC
CCCTGCACCATGGACCCCGCTCGCCCCCTGGGGCTGTCGATTCTGCTGCTTTTCTGACG
GAGGCTGCACTGGGCGATGCTGCTCAGGAGCCAACAGGAAATAACGCGGAGATCTGTCTC
CTGCCCTAGACTACGGACCCTGCCGGGCCCTACTTCTCCGTTACTACTACGACAGGTAC
ACGCAGAGCTGCCGCCAGTTCCCTGTACGGGGGCTGCGAGGGCAACGCCAACAAATTTTAC
ACCTTGGGAAGGTTTGCNACNATTCTTTGTTTGGANGANTAAAAAAGGTTCCCAAAATT
TTCCCNCTTTNAAAAGANNNTNGNGACNNNCACTNNGGGGGGGGGCCCCAAAAAAATT
TTTTTTNTTAANNCCCCCGGGGNNGNAAAAANTTTTTTTTGGGGGGGGNCCCCCCCC
NNGGGNNAAAANNNTTTTANAAAAAATTTTTTTTTNTTTTTTCCCCAAAAAAATTTT
T

Sequence 1735

GCGTCCGAAAAACAATACACGGAAGCTTTTCGAGGCCCTGTAATTGGAATGAGTCCACTT
TAAATCCTTTAACGAGGATCCATTGGAGGGCACTTCCAGAATACCTCCTCCCCAGCGCC
CGCTGCCAGCCCCACACAGGTGTGAGAACCAAGGTCTGGTGGAGGCAGCTCCAGGCACT
GCCAGTCCGACACAACCTGCAAAAAATCCATTAGAGCCACTGCCCCAGAGATG

Sequence 1736

CGAACCTCCTGGTTCCAAGTGGGAGACATGGTGTGTCGGAGCTAGCGGCGCGCCTCAAC
TGCGCCGAGTACAAGAACTGGGTGAAGGCGGGCCACTGCCTGCTACTGCTTGCGCAGCTG
NCTGCAGGGTTTCGTCGNCCGCNAGGTGCTCTCCTTTCCACCCGCGGCCTACTCGCCGCA

TABLE 1
287/467

GCCCCCGGC

Sequence 1737

ATCCTTTTGCCTAAAGATGTAACAAAACCTCAAGACAGAAGGAATCAGGGAATATGTGCT
NTTGTGNGCATCTTGTTTACATTTNGGGATCAANTGATGGCAAAGAAGTAATGAGACCA
CTNNAAATTGTTTTNCANTTGNNTTTAAANACCAGGGTTCCTCATTTTCTTTGATTTTG
NAAGTTTTAACAATTGACCTTCTTAAGNGACATTCTCTTCAAAAAAGANANGTAAANCA
GGNGAAATGAAGGGTGGNTGGGGAAA

Sequence 1738

CCGGCTCATTCCCTGAGGCCGGCCCGCTCCCGTCAGGGCGCGCGCGGGGTTAGCGCGG
GGTCAGCGGAGGTGAGCGGGGGTCAAGCAGCAGCGGCTCCGAGGGCGCGGGCGGACGCAGGA
TGACACGCTGCTGTCGGGCTTGACAAGTACATGTTTCAGAAGGACGAGTACTGCATCC
TGATCCTGGGCCTGGACAATGCTGGGAAGACGACCTTCTGGAGCAGTCGAAAACCCGAT
TT

Sequence 1739

GTCCGNCCACGCGTCCGATTTCTTGTTGCTTTGAAAAAAGTTTCAGCTTGCTGTCTCTT
TTAGTGTTTTAAAGAAGTGTTATACAAAGCATTGTTTGCAAATATAGGGAGGATAATGG
GAGTCCCACCTTAANTTNGGGAANTCNTTGGGNGANCTTNTTATCCAAGGTTTANTCAA
GCCTTCNTTTTCCAACTTTTAAAAATTTTTGTTAAAAAAGCCACCCTTTGCTTTANGA
AAAAATTTTTAAAAATTTTTANTGTTCTTGCNACCAAATTTGTTCTTNAAAAAATAATA
AAAACCTTGNTGGCAAATTCNTTTGGTCNNTTTAAAAA

Sequence 1740

ACGCGTCCGCAGCCATCTTGGGATCTGGGCAAGTGAGCGAGCTCCTTCCTCACCAGGCTG
ACTAGCCTCTCCTTTCCCTGTCCCCCTCCATCGCTGCTCTGCAGGAAGCCAGCCCCCAGG
GCCAGTCCCGGAGGGGCTGATCCGCATCTACAGCATGAGGTTCTGCCCTATTCTCACAG
GACCCGCCTCGTCTCAAGGCCAAAGACATCAGACATGAAGTGGTCAACATTAACTGAG
AAACAAGCCTGAATGGTACTATACAAAGCACCTTTTGGCCACATTCTGTCTGGAGAC
CAGCCAATGTCAACTGATCTATGAATCTGTTATTGCTTGTGAGTACCTGGATGATGCTTA
TCCAGGAAGGAAGCTGTTTCCATATGACCCTTATGAACGAGCTCGCCAAAAGATGTTATT
GGAGCT

Sequence 1741

CANCGCCCCGGCCGNTCAAGCAGCNTAATAAAGCTCATANAGGCGGACNNGGCATCNGGG
TCTNGGGATCTGCACAGCGGACTGGCATAGGGCCGTCTGGCACTGAAAACCCTAANCAA
GAAGGTGTGAAAAGAACTTNAGCNGANNCGACCNGAGGCATCNNGCCAGCCAGCTCCG
AAAGCAGAAGANGGAGGCGGTTCTGGCATGAGAAAGANACAGCTGGGCTGGCNAGGATAG
GCCCCCTCCTTCATCAAGGTAAGTGGTGGTGGCCCTGCACAGNANAATTNTNCCTGCCAGAG
GCCATGCANCCTGCTTCAAGATAGGGACACTGGAACAGATACACTTGAATGAATTGGGGA
AACACCCCAAGAACTTTT

Sequence 1742

CACGCGTCCGTTTTTTNCAAGGGTCTATTGTTTCGATTAGTTTCCTTGCAGGAGGTAGAA
GGTTTCCTCCATCCCAGTAATTCATAGAGTGTTTGGCTTGNCTACCTTCCTCCTGACTG
AAGTCACCTGATACTTTTTGTTTTTCAAGAAGGAAGAGAGAACCCTGTTGCCTCAGTTA
CTAGCAATGATACAATTCTCAAAATCTGGTCTTTTTTTGTTTCTTTGAAATAGTTTCTCC
ATGTTGTGTGACACAGCAGCCCTGTCTTATCATAGTTGTCTTCCCTCCACCACCTGTAC
CAGAGATGTTGGATATGTTGGAGGTGAAGGTGTGCAAGGTTTTTAACTAACTGTTCTAAT
TAAAGGATTCTGCAGGAAAGAACATGGGTTTACAAAAGAGAAGCTTTTGTATTATTAGTA
ATTTTTTTCTTTGATGAATTTATGTGCTTAGTTTGGAGAATCGAGAGTTGGCTGGGAAA
AGATTTCTGAGGAGTTAAGGGACTCTGGTGCTGTTTGGGAA

Sequence 1743

GTGATTAGAAGTAAGCGNTGATGAGGCTGAAGAAAAGGAAGACAAAACCTGAGTACTTGGA
GGAACGAAGAGTAATGGGATATCCAATAAACTGAGAATGTTTCTTCACAATCTCCTTTAT
TCTTCGTTCCCTCAAGTACTCAGTTTGGTCTTCTTTCAGGTGTAGGAACGTGATAAAGAA

TABLE 1

288/467

GTAAGCGATGATGAGGCTGAAGAAAAGGAAGACAAAGAAGAAGAAAAAAAAAAAAAAAAAAGG

Sequence 1744

CGATTTCTTTGTTGGACAACCCAGCTGGGGCTAGGAATGGTTCAGAAGGTTTAAGGCCGG
AANGGGNAATGAAGGGGCCCCGGCGCTAACCCCTCTAGGGACCTGTTTTGCTTCTGTTTAAA
CCAAATGGGCAGTCTGTCATTACACACACCCTGNGTCTTCATATGTGGCTCGCCAGTATA
ATGGAATGTGCTTACAAGGGCCAGCAGGAGTGCCTGGTCGAGACGGGAGCCCTGGGGCCA
ATGGCATTCCGGGTACACCTGGGATCCAGGTCGGGATGGATTCAAAGGAGAAAAGGGGG
AATGTCTGAGGGAAAGCTTTNAGGAGTCTGGACACCCAACTACAAGCAGTGTTTCATGGA
GTTTCATTGAATTATGGCATANATCTTGGGAAAANTGCGGAGTGACATTTACAAANATGC
TTTTCAAATAGTTGCTNTAANANTTTTGTTCAG

Sequence 1745

GGACGCGTGGGTGGAAATGTAAACAAGAATAGACTGTTTCATTCCCTGATGGCTTTTAGTCT
ATACTAACATATTGTTTGTATGGCATCCGAGACTGAAAAGACCCATGCTTTACTGCAGA
CTTGTAGCACTGAATCTCTATTTCAGCCTTGGGTCTGGGGGCATTTTGCCTCGTAGCT
GACAGACTTCTTCAGTTTTCCACAATTACAGCAAAATGACTGGCTTCGTGCTCTCTCAGAT
AATGCAGTACATTGTGTAATTGGCATGTGGTCATGGGCGGTAGTCACTGGAATCAAGAAG
AAGACTGACTTTGGAGAAATCATTTTAGCTGGATTTTAGCCTCTGTTATTGATGTAGAC
CACTTTTTCTAGCTGGATCCATGTCTTTAAAGGCTGCTTTGACTCTCCCGCGAAGACCT
TTCTTCACTGTTCTACTGTGATTCCCGTTGTGGTTCTGACCCTGAAATTTACTATGCAC
CTTTTCAAGCTCAAAGACTCATGGTGCTTTCTTCTGGGATGGTATTTATATCC

Sequence 1746

GTGAACAGGNTATTGACTATGGTAACTTATTTTATTGAAGTTTTCAACCGGAAAAATAGT
AAGTGGAATATGATACAACTGTTATTTTCAAGACATATTTCTTAGGGCTATTTAAATA
ACCTTTTTAAAGGGCAAAAACCTTTCAATTTGAGAGAACAAATTCCTCTCCTCTGTGGGAA
ATATTGGCTGAGATTTTGTATAGAATAAGAGACATGTATGTAACATATATTTATATTAG
CATAAGTCTACTGCAATCATGTACACATCTTAGCAAGACGAGAGGATTTTGTTAGTCTT
TGTTTATGACTTCTACAGTTTCTGTATCTAGTGTTAAGTTGTAAGGAAAACTAAACAT
GCAATTTAAAGGTAAACTTGATAACTATTTATGGAACATAAGCATACACCAATGGTTATT
TCTCACAGTTTTCATGCGCATTTGTTTATTGTTTACTTGGATTAGGCTCATTAAAAACCA
TAATGCTGGTCAACAATTAGAATGCTAATATTTGGGGAAGCTATGCAGAAAATATTT

Sequence 1747

CNTGTGTGCCATGTATACCTAACGGGAGTCCCAGAAGACAGGAGAGAGAAAAAAGAAAGAA
ATAAAAAGAAATATTTGAATTTAAATTTGCTTGAAATGTCTCAAATTTGATGAAAAATAT
TACTCTGCACATTCAACCCATGAACTATAAGTTGTATAAAATCAAAAAGTTTCACACCAA
GGCGTGTCTAGCCAACTGTCAAAAGCCAAAGACACAGAATCTTGAAAGCAGTGAGAGC
AAAGCAGACAAGGGATCCCCAATAGGATTAACAGCAGATTTCTCATCAGAAGCCATGCAA
GCCAGAAGGCTATGGGAGACATACTCAAAATGCTGAAATAAAAGACTGTCAACAAACATT
TCCACATCCAGCAAAAATCAAAAACGAAGGAGAAATCTGTTGCATGTGAGCTGAATAGAA
TTTGATTCTGCTGTTGTTGGATTGAAGTATCTTTAAATGTCAATTANATCAATTTG

Sequence 1748

CGATGGCAATACATGTACTCAGATAGTTACATCCCTATATAAAAAGTATGTTTACATTTA
AAAAATTAGTAGATAACTTCTTTCTTTCAAGTGACAATTTCAATTTGACTTGAGTCAA
CTTTTGTTTTGGAACAAATTAAGTAAGGGAGCTGCCAATCCTGTCTGATATTTCTTGAG
GCTGCCCTCTATCATTTTATCTTTCCCATGGGCAGAGATGTTGTAAGTGGGATTCTTAAT
ATCACCATTCTTGGGACTGGTATACATAAGGCAGCCGTGAAACTGGAAAGTCATTTTGAT
GACTGATGTGATACATCCAGAGGTAAAATGCATTTAAACATATTTAAAGTATTTGCCAAAG
ATACAATTTTCTTGCTGACATAAAAATCACACAAACAAGTCCCCCCCAAACCACAACGT
CTCTCAAATAGCTTAAAAAATGAAAAACATTTTAGGATTTTCAAGTTTTCTAGATTTT
AAAAAGATGTTCAAGCTATTAGAGGGAATGGTAAA

Sequence 1749

TABLE 1
289/467

GCCCNCCCCGACCCTCCAGCTCATGGTGTCTGGGGCCTGCGGCTAGACTCTTGGAACATT
CTGGAACCTCTCTCCTTTCTGGCTGGGGCTCTGACCACAACTCCCCTCCAGGCTGCCCC
TGGGACATGGTGGTGATGTGGGTGCAGGAGCCAGTGTCTGTTGTCGGGACTCGCAAGTGC
CCTCATCACAGCCACCCCCACCACGAGTGTCTCCCCAGTGCAGACTCAAGTTATGCTTGA
AATGAAAAAGTCTATCTGGTAGTGGGTAAACGTAGACCTGGCACTGTTCCACGCGGGCGC
CCCAAGCCTGCCACTCCTGTGTCCCTGCCTCCCTGGGCTCCCGAGATAGGCACCACTGTA
TCCTCCAGCTCCTTCCTTCCTTCCCCCAGGAACACGGAGGCCACCGAGGGGGCTGGGCCT
ATCAGGAGGACACAGGCTGCAGCCTGGCACCCACCCCTCCATCTTCACCCACATGGAAG
ACTTGTCTTCAAC

Sequence 1750

GCGTCCGGATTCTAAAAAATAAAAAAAAAAAAAAAAAAATTAATTGGGGTGCCTTTTTG
TTATAGTTTCTATTTTCTGTTTTGTAGGACAAGCTGCATTTTCTGTAAATATAGGTCTGG
ACTAAAGGATACATAAAGAATGCACAAATGTCAACATCAGCAGAGATGCCAGATCTAT
TTATCTCTAAGTATATTTGAAGTGATTGCTGNTTATATGTTGTCATTTTAAATTTGTGTG
TCAGTAAAGCTACCTGTAAAAATTCAGTCCAAAAAATAAAGCTCTCAGGGAGACATGA
ATAAAATCAATGAACATTAGAAAATAAAATATAGATGCTTACCATTAACTACCAACTCT
TAATATCCTTAAATTATGTGATATATAAAGAGGACTGTTACTTTTTACTTTCTTTTTT
TTTTTTTTGGCTTTGCTTTATTTATTTGGAGT

Sequence 1751

GGGCATGCTCATAGGCACAGCTGTTGGTCAGTATGCCAATAACATCACACTTTGGATCTT
TGCAGTCACTGCAGGCATGTTCTCTATGTAGCCTTGGTGGATATGCTTCCAGAAATGTT
GCATGGTGATGGTGACAATGAAGAACATGGCTTTTGTCTGTGGGGCAATTCATCCTTCA
GAATTTAGGATTGCTCTTTGGATTGGCATTATGCTGGTGATTGCCCTCTATGAAGATAA
AATTGTGTTTGACATCCAGTTTTGACCTTTCCAGTAATCACTGTTGATTACGAGAATGT
TACCATGCAGCTTTCATCTGTTCCCTGTACTGTATGCACATTGCTCAAAGGAAAGTCAG
TGGCTTGCACACTTACAAGTTTCATAGATTTGAGCCTAACCAAGAGGCTGGTGCTTA
GTACTGTTTTCCCTGCACGTAGGGGTCTTTTAAAAATATAAAGCTTGTGATAAAGAGAGG
A

Sequence 1752

CTGGTTCAGCAGCCGCCCCACCCACCTCTGAGTCTGACCTGGAACCTGCCACAGATGGGCC
AGCCTCCGAGACCACTACCTCAGCCCAGAGGCCACCACTTTAATGACACCAGAATCCC
TGATGCAGCTGGTGGCACGGCGGCGTGGGTACCATGCTTCTGTCTTTGGGATCATCAC
GGTGATAGGCCTGGCTGTGGCCTTGGTTTTGTACATCAGGAAGAAGAAGAGGCTGGAGAA
GCTACGCCACCAGCTCATGCCATGTACAACCTTCGACCCACGGAGGAACAAGATGAGTT
GGAGCAGGAGCTGCTGGAGCATGGGCGGGACGCCGCTCTGTACAGGCTGCTACTTCTGT
GCAGGCCATGCAGGGCAAGACTACTCTGCCCTCCAGGGCCCACTCCAGAGACCCAGCCG
GCTTGGTGTTTACCCGATGTGGCCAATGCCATCCATGTGTGAGTGGCCTGGGACAAGC

Sequence 1753

GTCGCCCCGCGTCCGGTGCTCTCATGTCTCATCTCAGAGTTCAGCTTATCAGAGGCATGTA
GCAGGGAGGCTTATTCCAGCCATAACTGGGCTCTACCTCCAGCCTCCAGAAGTAATCCCC
AACCTGCATATCCTTGGGCAACCCGAAGAATGAAAGAAGAAGCTATAAAACCCCTTTGA
AAGCTTTCATGAAGCAGAGGAGGATGGGTCTGAACGACTTTATTCAGAAGATTGCCAATA
ACTCCTATGCATGCAAACACCCCTGAAGTTCAGTCCATCTTGAAGATCTCCCAACCTCAGG
AGCCTGAGCTTATGAATGCCAACCCTTCTCCTCCACCAAGTCCTTCTCAGCAAATCAACC
TTGGCCCGTCGTCCAATCCTCATGCTAAACCATCTGACTTTCACTTCTTGAAAGTGATCG
GAAAGGGCAGTTTTGGAAAGGTTCTTCTAGCAAGACACAAGGCA

Sequence 1754

TCGCCCCGCGTCCGGACTGATCATAAACCATGCTGGTATTGCACCTTCTGGAACATATGGG
CTTGAGAAAACCCCAAGGATCACTTCTCCTTGGCTTCTTATTTCTTGAGGCAGGTGCG
ACGTTCTACCTGCCAAGACGTGTGATATCAGCTTCTCAGATCCAGACGACCTCCTCAAC
TTCAAGCTGGTCATCTTGTCTGATGAGGGCTTCTACAAGAGTGGGAAGTTTGTGTTTCA

TABLE 1
290/467

TTTTAAGGTGGGCCAGGGTTACCCGCATGATCCCCCAAGGTGAAGTGTGAGACAATGGT
CTATCACCCCAACATTGACCTNGNGGGCAACCGTCTNGCCTCAACATCCTTCAGGAGAGG
ACTGGAAAGCCAGTCCTTACNATANACTCCATAAATTTTATTGGGCCTTGCNNGTATTCT
TTTTTTNTTTGNGAGCNCCAAACCCCNNGANGGACCCCACTTGGAACCNAAGGGAGGGC
NCGCAAGAAGGGTTCTTGGAAGAAACAAACCCGG

Sequence 1755

TCCGGCCCCGCCACCCGCCGCGCAGCTACCATGGATGATGATATCGCCGCGCTCGTNTGTC
GACAACGGCTCCGGCATGTGCANGGCCGGCTACGCGGGCGANGATGCCCCNCGGNCCGTT
TTCCCTCATCGTGGGGCGCCCCANGCNCAGNTGCGTGATGGTGGGCATGGGTGAGAAGG
ATTTCTATGTGGGCGACGAGGNCCAGAGCAATGAGAGGCATNCTNACCCTGNATTACCCC
ATCAGAGCACGGCATNTNTACCAACTGGGACCGACATTGGAGAAAATCTGGCACCACAC
CTTTCTACAATGAGCTGCGTGTGGCTCCCGAGGAGCACCCCGTGCTGCTTGACCGAGGGC
CCCCTGAACCCCAANGNCAACCCGNCGAGAANGATNACCCCAAGATNCATGTTTTGAGGA
CCCTTTTCAACACCCCAAGCCCATGGTTACCGTTTGCCT

Sequence 1756

GCGNNGGGGCCGGGGCTGGGGTCCGGGCCAGGGGTCCGCCGGNGGCGGNNGACGGGCGTN
CGGTGCCTGGGCTCTCTCCGCTCCCTGAGGCGCCGCTGGGGAGTGAACCTGATGATGG
GACCTGTGAATTCAGCGGGGTGCCAAGTCGTTTTCTGTGTGGGTTGAGAGACAGGCTGNG
CAGCCCACTGTTGCATAGGACTAACTACTACAAATCATGCTGAGACCGAGCTATTTTTGC
TGCTTAGAGGCTTTGCAGCCTTGAGAGGAATTTTGTGTGAGGAGAATAAAAGGAGGTTG
TCCATNATTGACTTTAAGCAGCAATCAAGTAAACATTGAGCTCTTNAGCTCCGCCTTTC
TTGCTCTGAAAATTGAAAACCAANAAGGTTTTGNTGTTATTGTGTGACCCACCTGAAT
TATAACCAAGATGAACATAACCAAGGTGGTCTNNGTGTTGTTTTTCAGCAAAAC

Sequence 1757

GGATCTACCANGTGTCTNGAGCAGCAGGAGAGAGCCTTCACGCTGGGGCTAGCAGGACTT
CTCGGCGAGGGAGNNTTTAACTTTGGAGAACTNCTCATGCACCCTGTGCTGGAGTTCCTG
AGGAATACTGACCGGNAGTGGCTGNTTGACACCCTCTATGCCTTCAACAGTGGCAACGTT
GAGGCTGGTTCCAGACTCTGAAGACTGCCTGGGGCCAGCAGCCTGATTTTAGCANCTAAT
GAAAGCCGACCTTCTTGAGGAAACATTTAGTTTTGTTTGTGCTCATTGNNAGATGAC
TTTTACACCGACCTTGCCNATTGAGAAGACANACTTNACTTTTTTTGAAGGAAAATTG
CCAAAAAGTTGGCCTAAAAAATCNACAGGTTGAAATGGAAGGTGNGAAGNCTTTTCT
GGGGTGGATTGAAAANGGGCACCTTTTTCGGNTNNGGGGGCCTGGGT

Sequence 1758

GAGCCGGCTGGCTCGAGTGGCCTTCGTGCTCCCTTGGCGCCCTGGGAGAGTCGCTGACGG
GTGGACTGACGGACCGCCTGAGGACGGCCGGCCAGGGCGGTGAAAGCGCCAGCCCTATGG
CGCGGGTTCGAGTGAGGCGGAAGGCCGAGGACGGCCGGCGGCGCGCCCGCCCGGCGAT
GCGGGCCCCGCCCCGTGCGCTNAGGTGCCATTTGGATTGTACTTTAGTGGCACCGATGTAC
TCTGAGTGGAGGTCACTGCATTTGGTGATTGAGAATGATCAAGGCCATACCAAGTGTGCTG
CACAGCTATCCAAAGAGCGTTNGACGAGAGGTGGCAAATGCTGTAAGTCCGGCCTCTTGG
GCAGGTGTTAAGTACCCCTTCAGTGGCTGGTAGTGAGAATTTGTTAAAACTGACAAAAG
AAGTA

Sequence 1759

GTCGACCACGCGTCCGGTCTCGGCGCCCCGCTGCCCTCTACCGCCCCACGCAGGATCCCG
GCCTGGTCACCGGGCAGTGTGATGCTTCCGACTGCCGCGGGGACAGCGAGGCACACACA
GGGCTTGGGCCGCGCCGGAGGCCACACGGCCTGGCTGAGTTGCTCCTGGTCTCCCGCCTC
TCCAGGCGACCCGGAGGTAGCATTTCCAGGAGGCACGGGCCCCCCCCAGGGGGATGGGC
ACAGCCACGCCAGATGGACGAGAAGACCAAGAAAGCAGAGGAAATGGCCCTGAGCCTCAC
CCGAGCAGTGGCGGGCGGGGATGAACAGGTGGCAATGAAGTGTGCCATCTGGCTGGCAGA
GCAACGGGTGCCCTGAGTGTGCAACTGAAGCCTTGAGGTCTCCCAACGCAGGACATCA
GATTCCTCATGGTGCAAAATGGCCATTCCAAGCTTCCATCCAGCCATCACATCACAGGAG
GAAGGGAAGA

TABLE 1
291/467

Sequence 1760

CCGATGTCTACAAGCTCGTCAAAGACTAGGGTGCCCTCTGCGCCTCCTTAAGGATGCAGG
GTGAGCATCTCCTCTCCACACCTGCCTGGCACCCCTGGGGGGGTCCAGGATTGAGGATTC
ATCTACCTGCCAGGCCTCAGGCCCAGGACCCAGGAGGCCTCCCCACCTACCCCAGCACAC
ACACTCCCTGCCACTGTTCTGCGCTTTAATTGTGGGAGAAGAGAGGAGAGGAGGGCTCAG
CGGTGGGGCAGCCTGTCCGGGGCGCTGACCCACCATCACCTGCTCTGCCAGCCTCGCG
TGACCTCAGAGAGGTGGGGATAGGGGACACCTTCAGCCTCCAGCATGTGTGGCCACTTGT
ACCCCCACCCACCCTTGGGGGAGCATGATGGGCAGGTTGAGGGGCAGGATGGAGACCAAG
GGGAANTCAGTGAGCAGNAGGCCCTGGGGAAGTGTCCGGTCGGGGTTGACTTGAGGGAC
AGAGGGGCCCAACACTTTCTTGCCCCCTTTG

Sequence 1761

CCGCCAGGCCACCACCATCACACCGCCTCTGGCCGNCACCCCATCTTNCACCTGTGCCCT
CACCACCACACTACACAGCACACCAGCCGCTGNAGGGCTCCCATGGGCTGAGTGGGGAAG
CAGCTTTNCCCTGGCCTCAGTTCCCAAGCTAACTGCCACGTCCACCCACGCATACACACA
TGCCCTCCTGGACAAGGCTAACATNCCACTTAGCCAGCACCTGCACCTGCTGACGTCCC
CACNTCCCTTGTTGGTGGGGACATTGCTTCTCTGGGGCTTTTTGGAATTGGGGGGCGCC
CTTCTCTGCTCCTTTCACTGGTTAGNCTCTGGCTACCNATAAGCANGAGGCCNTGGGAAG
GGGTTTCTCCCTGGGCCCTTAAAAAAGGNGGGCCCCAAAGC

Sequence 1762

AGTCGACCCCGCGTCCGGCAAGCGGGACCGGTAGGGGGCCGGAGCATGCGGCGGCGGCGCT
CGGACTGTCCCATCCGCCCGTATTGAGGCGCTGGGAGCGGCGGGGCGACAGGAAAGCGA
TGGTGAAAGCGGGGCGGTGAGGGGGGCGAGNGCCGGGAGCCGGACCCGCGAGTAGCGGCAG
CAGCGGCGCGCCCTCCAGAGTTCAGACCCAGGAAGCGGCCGGGAGGGCAGGAGCGAATC
GGGCCGCCGCGCCATGGAGCTGAGAGTCGGGAACAGGTACCGGCTGGGCCGGAAGATCG
GCAGCGGCTCCTTCGGAGACATCTATCTCGGTACCGGACATTGCTGCAGGAGAAGAGGTT
GCCA

Sequence 1763

CGCGTCCGGGGTGATTTGAGCTCATCTTGTTGAGCAAGGGGAGTGAAACCACAGAACTG
TTAAATTGAACGTAAATAACTTTGGAAAACAGTTTGGACACTAGAACAAGGTCGCTTCTC
TTTTCTCTTCTCTCCCAACCTGTTAACCTAGTGCTAGATAGTCAGCTGCTGTTGCAGGT
AGAAAGCTCACCAATGCCACATTTGTTTCTGTTCAACCTGTTTTGACCTCCCAGGC
ATCTGAACAGGATGACATCATCTTATTATCTTACTTTACACATACGTGTATGTACACA
CACACACACAATAACAAGACATTTTTCTGTTTTAGAAAATATAGCCCTTGTTTGGATTAC
TGCTGTCTGAGCACTAGAAATTTCTAATGGAAAGAGGCCTCTGAATGGCTAAGGGAACAT
CTGGAAGGAAGGAAAATGAGCCTNAAGGTTTTTGGTGCTTGGTTTTTGGTTCTTTTTCT
TTCNTGGTTCCTTTTTTGGTTT

Sequence 1764

AGTCGACCCCGCGTCCGCGGACGCGTGGGCGGACGCGTGGGGGCCCTCCGGGAAGATGGC
GGCCGTGCAGGCGGCCGAGGTGAAAGTGGATGGCAGCGAGCCGAACTGAGCAAGAAGTG
GTGGTAATCATTAGTTCAGGGTGCTCTGCCATGTTGACGCAAGCTGCTGTAAGGCTTGT
TAGGGGGTCCCTGCGCAAAACCTCCTGGGCAGAGTGGGGTCACAGGGAAGTGCAGCTGGG
TCAACTTGCTCCTTTCACAGCGCCTCACAAGGACAAGTCATTTTCTGATCAAAGAAGTGA
GCTGAAGAGACGCCTGAAAGCTGAGAAGAAAAGTAGCAGAGAAGGAGGCCAAACAGAAAGA
GCTCAGTGAGAAACAGCTAAGCCAAGCCACTGCTGCTGCCACCAACCACACCACTGATAA
TGGTGTGGGTCTGAGGAAGAGAGCCGTGGACCCAAATCAATACTACAAAATCCCGCAGT
CAAGCAATTCATCAGCTGAAGGTCAATGGGGAA

Sequence 1765

TCACCCCGCGTCCGACTTGAATCCCGTCAGCTTAAACTTGTGTAAGGGAATCCTGACTT
TTAAATGTGAGGGTATTTGGATCTGTGTTGAAAGTCGTATATTTTATCTGTGCGGTGC
TGAGTGCAGGCCACCAGCTCCTAAATAGAGGTTCCCTATATGCGCGTATGACATGGTGAA
TAAACACAACTCTCTCACTCAGGACATCCGGAGCGTTATGGACCGTGGTAGGTGGTCGT

TABLE 1
292/467

TCTGTGTGCTTGTGAAAGTGTCCAGGCGTGTGCACAGCCAGTGCGCCCACTTCCGGGCTC
CTTGCTCCCTGCTGTAAGTTTTGGATTTTGCATCCAATCCTGTGTGCCTGCCCTTC
T

Sequence 1766

GTCGACCACGCGTCCGGCTCCCGAGCCTGGAGAGCTCGGACTGCGAGTCCCTGGACAGCA
GCAACAGTGGCTTCGGGCGGAGGAAGACACGGCTTACCTGGATGGGGTGTGTTGCCCG
ACTTCGAGCTGCTCAGTGACCCTGAGGATGAACACTTGTGTGCCAACCTGATGCAGCTGC
TGCAGGAGAGCCTGGCCAGGCGCGGCTGGGCTCTCGACGCCCTGCGCGCCTGCTGATGC
CTAGCCAGTTGGTAAGCCAGGTGGGCAAGAACTACTGCGCCTGGCCTACAGCGAGCCGT
GCGGCCTGCGGGGGGCGCTGCTGGACGTCTGCGTGGAGCAGGGCAAGAGCTGCCACAGCG
TGGGCCAGCTGGCACTCGACCCAGCCTGGTTGCCACCTTCCAGCTGACCCTCGTGCTG
CGCCTGGACTCAGACTCTGGCCCAAGAT

Sequence 1767

CCGGAAGAGTGCTTTATTGTGAAATTATTTAAACTGTCCTTTAAAAGAAAAAGAGGAAA
CGATGAACAAAACTAATCTAATTGCCAAGTTAGAATTCATNATTTAATTTACCTCCTAT
GCAATGATTAATGCTGCAAAATGTATGGTTATGTTACCGTATATTCACAAAAGAAATATT
ATTACAAGGTTTCAGAGGTAGCCAATTGCATTCTTTTGGAAATTTACTGTACTGTTTCAA
TGTGTTAAGTGCCTTGTTGTAAAGTAAAATTTAAGTCTAGATTCATTATTTTCTGACA
TATATTTTTCATTATGATATCTACTGTATGCTATTGTGATAGTTTTATGAAATGCTTACA
TTTTAATCAAATATGTAAATTTCAGAAGCTCTTTTTTCTACCCACCAGTACCTTAATCA
TTTGTTTTATCACATTGGATTCAAATTCAGGTTCTTTTTTGATAAGAGGAAATTTGTT
T

Sequence 1768

CCGGTGGGATAGTAAAAGAGAAGACGCGGAGAAGAGGAGAGGACCTACAAGAACGGAGGA
CAGGGGCGCACGATGGTCCCGGGGGGAGCGGAAACAAAGGNACGAAAACGGAAAAGCGT
GTGTAGGGGAGCGGAAAAGGAAGGTCACCACCTGTGGCCTGCGACCGAAATGGCGAAAAG
TCTTTTGAAGACAGCCTCTCTGTCTGGAAGGACAAAATNTGCTACATCAAACAGGATTG
GTCACTTTTATAGTACATCCCATGGTATGTTTATGNAGGGAAGGAAGTGNAAAANNAACA
CCTTCAGCAGTTTTCTGGNTGGNATTCATTGNACCTNTNAGNAAGGGAAGNACAANTG
GGGCATTTGGGNCATTTCTTTACNTCTTGAACCAATTCCCAAGTTAGGAATGGAATGCC
CTTTTTCAGGTTGTTAATTGNATGCTACAACTTCTTGGNAAAAAGTTAATTTGGAAT
TTGGGAAAAAATTTGGGAACAAANAGGGGGGAAAAAGGCCTCCATTGTNCCCGGTGGGGG
GCCAAAAAATACCTTTTCTTC

Sequence 1769

GCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGATTTG
TGTACAAATTGAAATGTCTGTAAGTCTCAACCAATAAAATCTCAGTTATGAAAAAA
AAAAAAAGG

Sequence 1770

GTCGCCCCCTCAGCCGCTTCCCCTCGCCATGGAGGCGAGGCCGCCGCCGCCGCCGGGGC
TCGGAGCCGCGGGCCGGGCGGCGGCCCTGAGGGCTAGTGGCGGCCGAAACGCCGCCGCG
GAGCCGAGGCGGAGCCGCTGTCTCGTCCCCAGCGGTCCCGCCCAACGCCCGACTCTGTG
ACACAATAAAAAAACAAGGTATTTATGGAATTCAGTGGTAATGGATGATGC
AGTTCAAATACTAAGATAAGCATGGATTCTGTTTCTTCTGTTCTGCTCGGCAGTGG
TCTGATATGTGTGAGTCCAACAATGCTACCACAGTTGCACCTTCTGTAGGAATTACAAG
ATTAATTAATCATCAACGGCAGAACAGTTAAAGAAGAGGCCAAAACCTCAAATCCAAC
TTCTTCACTAATCTCTTTCTGTGGCACCAACATTCAGC

Sequence 1771

GCGTCCGGGGCACATGGCCGCCGCCGCCGCTTGGAGCTGAAGTGCCGCCGCCGCCGGGCA
GCCACGGGGAATCCGCCCGCATCGCCGCCCTCGCCGGCCGGGCGGCCGTGGGGCCAGAG
CGCCGAGGCGAGGCTGGGGCGGCACCGCGCAGCGGCCACGGGGTCCCGTTAGAGCAGC
GCCCGGCGGCTATGCCGAGAGCCCGGAGCGGCCGAGGAGCAGAGGGGCCGNCGGGAGGG

TABLE 1
293/467

AGGAAACCTTTCTGCGAGTACGAGCCAACCGGCAGACCCGACTGAATGCTCGGATTGGGA
AAATGAAACGGAGGAAGCAAGATGAAGGGCANAGGGAAGGCTCCTGCATGGCTGAGGATG
ATGCTGTGGACATCGAGCATGAGAACAAACCGCTTTGAGGAGTATGAGTGGTGTGGAC
AGAAGCGGATACGGGCCACCACTCTCCTGGAAGGTGGCTTCCGAGGCTCTGGCT

Sequence 1772

TNGATGTGTATATGGACTGTTNTGAAGGGTTTTTTCTTTATAGCCCANTTAAGTTNTGT
TTGGCTCGGTGCATTTTTCAATTTATTTAATTAGTAATTTAAGTAACNGTGTGNGTAAA
ATCATTGTGAAGTTTCAAGATTCATTATGGGANGAGTTGATGGTNCANTNANGCATGATG
GTTTAACAAATTTTAAACCAAAAATGTTAAATCCTGCATAAATTCAACTGTANATAATA
AATANGGTGTTTTCNTGTATATGATAGNAATGCAATTAGAAGTACCTNTAGTAAANTCTT
TTGGAATCACCAATNCTTTTTGGCTTGAAAATTGGGAAAGAATTTCTGTTTATAATNCC
TTTNNAAATTAACCTTGNGNGGGGGGAGGGGGGAAAATAAAAAATTGCAGGAAAAACCTGC
ATGAGNCACCTTAANAACCTTTAAAAGTAAGGGGGCTTNCCAATCTTTTTANTCCCNNGA
AAACCCTGGTTGCCTNTTTTTGGA

Sequence 1773

CGTCCGTTTAAAGGCTCTGACTCTTGATCTTGAAAGCCGGACGCGGCACTGGCACTCGGC
TTCAGTTTCCACTGTGACAGATGGAGGTCTCCTTTGCCCCAGCCAGGTGGCCAAGCCC
ATCCTGGCCTCAGAACATGCTGAGCACATTTTGAGGGTGGCACCTTTTTATCCAAGTTA
CTAGCTACACATCAGTGTTTAAAGAGAAAAAGTGACCTTTCATTTTTTTTTCTTGAA
ACTTGAGGAAACAAGATACATACTACTGATTTTTTTTTCTTAAACTAAATGCATGA
CTGCAGAGCGGTAGAGGTGTATTTTTTCACTGTGGGGCAAAGTATTTGTGCTGCTTT
TTGGAGATGGACTGGAACGTCTGGTTCTGTCCCCGGGCCCGGCAGCTACCGTCTATTT
CTGTAGAAGGTGCCACAGTGAGACCTGGAG

Sequence 1774

CCCCGCGTCCGCTTCCGGTTGCTAACGGTTCCTCAAACAGCCCCGAAAACGCTACGTGAG
CTGGGCCCTGGGCCAGAGGCAGAAAACGGACGGAAGAAAAGGTCTGGCCGGAGATGGGTC
TCACTCTGTACCCAGACTGGAGTGCAGTGAGTGGTGCGATCATAGCTTACTGCAGCCTG
AAACTCCTGGGCTCAAGTGATCTTCTCGCCTCAGCCTCCTGAGTAGCTGGAGCTACAGGT
GTGAGCTACCCAGCATGGCTCATTTGAGATTTCTGAGTAGAGAAGTAACATGATTAAAC

Sequence 1775

GGAACCTCCCCAGATTTTCAAGATGTATGAAAACGCCTAGATGCCCTGGCAGAAGTTT
GCTGCAGGGGCGGGGCTCTCATGAAGAACCTCTGCTAAGGCAGTGTTGAAGGGAAATGTG
GGGTTGGAGCCCCCAAACAGAGTCTTAGTGGGGTGCTGCCTAGTGGAGCTGTGAGAAGA
GGGCCATCATCTCCAGACCCAGAATGGTAGATCCACTGACAGCTTGAAGTGTGCACCT
GGAAGAGCCGCAGACACTCAATGCCAGCCCGTGAAAGCAGCCAGAAGGGAGGCTGTACCC
TGCAAAACCACAGGGGCAGAGCTGCCCAAGACTGTGGGAACCCACCTCATGCTTCAGTGT
AACCTGGATGTGAGACCTGGAGTCAAAGGAGATCATTCTGGAGCTTTAAAGTTTGACTGC
CATGCAGGATTTTCGACTTGCATGGGCCCTGTAACCCCTTTGTTTTGGCCAATTTCTCCC
GTTTGGAACGGCTGTAATTACCCAATACGTGTATCCCCATCGTATCTAGGAAGTAACTAG
CTTGCTTTTGTGTTTACAGACTCATAGGTGGAANGGACTTGCCTTGTCTCAAATGAGACT
TTTGGACTGTGGACTTTT

Sequence 1776

GCGTCCGGAACCTTTATAAGAATTTATGCCGTTNTACATGAACCGTTAAGTTTTGTACTTG
ACGTTTCTGTTTATTANGCTAAATTGTTCTCAGGTGTGTGTTNTATATATATACATATAT
ATATATATATATATATGTATATATATACACATATATACGTATATATACATATATATGTAT
ATGGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTGGCACGATCCCAGCTCACTGCAA
CCTCCGCTCCCGGGTTCGGGCGATTCTTCTGCCTCAGCCTCCCTGGTAGCTGGGGCTGC
AGCCATGTGCCACCAAGCCCAGCTAATTTGTATTTTGGTGGGAGACAGGGTTTCACCAT
GTTGGTGAGGCTGGTCTGGAAGTACCTCAAGTGATCTGCCACCTCGGCCTCCCAAGGT
GTTGGGATTAAACAGGTGTGAAGCCACCGCTGTCCAGTATATTGTTTAAACAAGTTTA
TTTTGGGTGAAAAATTCTCTTTAATGGGAAGA

TABLE 1
294/467

Sequence 1777

CCACGCGTCCGGCGCCCCCTCCCGGCCGCCATGTTGGCTGGTGTGTGGGTGTCAAACCTGA
GCCAGACGCGGCGGTGGCGGCGGCTCCGCGGGCTACGGTCGCTCCCGCCTCTCGAGCGCT
GCCGGTGGCCGCGAGCGGCGCACCCACGCCGGCCCGGAGGAGCAGAGTGCTAAGTGCTGGG
TGCTCACTGGTGATGAGGCAGATGAAGGTTACCAAACCTGTGGACAGGAGCCTCATATCA
GAGACGTGGACCTCACTGTAGCCTGGTCATGGCTTCCAGCTTTTGAATCTGAGGCTCCA
AAGGAGGAAATGACCATTACAGGGATCTTACTCCAGCTTGATTACGGAGACTGAACCTTCA
TAGGGTGCGCACTTACCAAGGACAGGAAGGTTTCTCTGTTTGAAGGGCTTTAAACTTATA
ACAAAGAAAATAA

Sequence 1778

CGCGTCCGAGACAGTTCATACTGGAGACAAACCCTACAAATGTAATGAATGTGGCAAAAC
CTTTAAACGGAACCTCAAGCCTCACTGCACATCATATAATCCATGCAGGAAAGAAACCATA
TACATGTGATGTATGTGGCAAGGTCTTTATCAGAATTCACAACTTGTAAGGCACCAGAT
AATTCATACTGGAGAGACACCTTACAAATGTAATGAATGTGGCAAGGTCTTCTTTCAACG
TTCACGTCTTGAGGGCACCGGAGAATTCATACTGGAGAGAAACCCTACAAATGTAATGA
ATGTGGCAAGGTCTTCAGTCAACATTCACATCTTGCAGTGCATCAGAGAGTTCATACTGG
AGAGAAACCTTACAAATGTAATGAATGTGGCAAGCCTTTAATTG

Sequence 1779

NCCCCGCGTCCGCTGTTGGAGCAGTAGACTTCTCACATCTTTTTGTCACTTCATCGTTTG
ACTGGACAGTAAAGCTTTGGACAATAAGAATAACAAGCCTTTGTATTCATTTGAAGATA
ATGCAGACTATGTTTATGATGTTATGTGGTCACTACCCACCCAGCCCTGTTTGCCTGTG
TGGATGGCATGGGGAGATTGGATTTGTGGAATCTCAATAATGACACAGAGGTACCAACTG
CCAGCATTTCTGTGGAGGGTAATCCTGCTCTTAATCGTGTGAGATGGACCCATTCTGGCA
GAGAGATTGCTGTGGGTGATTCTGAAGGACAGATTGTTATATACCGATGTGGGAGAGATT
GCTGTTCCCCGCAATGATGAATGGGCACGGTTTGGCCGAACACTTGCAGAAATTAATGCA
AACCAGAGCTGATGCAGAGGAGGAAGCAGCTACCCGAATCCTGCTTAGTTCTGAAAAGGG
GAGTGTAAGTGTGATTGGGAAAGGGTC

Sequence 1780

AGTAGGAACCAAGAAAACCTTCTTTGCCAACTTTACAGGATATCTGGTAAACTATTACAT
NGTCAGGCCAAACATGCTCCTTGCATTTTTGTGGCTGAATNTGGGTACAGAGTGGTTCT
ATACGATGGTAATAACCAACTTGNAAATCAAAGGAAGNATTCCAACAGAAACAGATAGGAN
AANGTCTTGAGAAGATATATNAAGGAATNTGTCACTTGTACACNATGCCGATCACC GG
GACACAAATTCCTGCAAGAAGGGACACACCGGACTCTATTTTCTACAAGNGCAGGAAA
CCTTGTTCACTTAAGCATGGTTTCTGNTTGCCAGGTATTCAAAAAA

Sequence 1781

ACCCACGCGTCCGGCTGCGTTGGGCTTGCCTGCGGCTCGCTAAGACTATGGCGTCCGGGC
CTCATTCGACAGCTACTGCTGCCGACGCCGNTCATCGGCCGNNCAAGCGCGGGCGGCT
CCAGCTCCGGGACGACGACCACGACNACNACCACGACGGGAGGGATC

Sequence 1782

CCGCGTNCGTTTGTGTTGAATGGNTTGATACTTCTTTACACAACCTATCCATTACTTAA
GGAATCTGCTCTTATTCTTACAAACTGNTCNGGAACAAANTGATATCAGAAATTNGAT
AAAAGAACTTCGAAATGNTTGAAGGAGTNGAGGAAGNTCATTGAATTNCATGTTTGGCAA
CTTNGCTGGAAGCAGAATCATTTGCCACTG

Sequence 1783

GTCGACCCCGCGTCCGGGCCCGTCTACAAGGNTTGTAGATAAAATAGAAACATACCTTCC
TTGAAAATGCAGAATAAATTTTTAAAGGCAGGAAGGAAGTGTTGAACCATGTGTCAAC
AAGCTTTACTGTCAAAGCAGGCTTTTGGTATGGGAAGAAAAATACTTATAAATACTNGTN
TTAATATTTGCTTTATTAATAACATTTAAATAACAGCATTTTAAATCTCTAAGCTCAA
CTTGAAGATATAAGAACAGTAAATTTGATAAAAATGAGAAATTACATTCCCATTCTTTA
ACAATTTGTAAATTCGAATTATCCTGAACATTTAACACCATTTACATATTTTATTAATCA
CATTTTCTTAAACATTTGATAAGAGATTTAATATTTTGATCCAACCTACCA

Sequence 1784

Sequence 1785

Sequence 1786

Sequence 1787

Sequence 1788

CCCCGCGTCCGAGCAAACATAAGAAACCTGAGTCATTTTGTCAATTTAGAGTATTCTGATA
AAATCTCTTGAAAATACTGAAATCAAAAGGTTAATGATTTTTTGTTCATTCTGATTTGTC
ATTTTATTATCTGTCTAGCAGAAAAATCAAATGGGTAAATTAGCACTTTAGACAGCCAAC
ATAGTGAAACCCTCATCTCTACTAAAAGTTGGCAATTAATCTGAATTTACAGATACAGA
TAACAGTTTATCAGAAATCATATTTTTCTGAAGAAAATTTAAAATTAGGAGTTGTGGGC
CTGGTGCGGTGGCTTACGCCTGTAATCCAGCACTTTGGGAGGCTGAGGTGAGCAGATCA
CTTGAGGTGAGGAGTTCGAGACCAGCATAGCCAACATAGTGAAACCCTCATCTCTACTAA
AAGTACAAAAATTAGCCAGGTGTGGTGGCCGTGTGCCTGTAGTCCCAGCTACTCGGGAGG

TABLE 1
296/467

CTGAGGCGGGAGAATCGTTTGGAACCCG

Sequence 1789

GACCACGCGTCCGGTCGGCGTCTGGGCGCTCGTCCCCTTCTCTGTCTCCCTTGCCTCCC
CCATCAGTCCCCTGACACCGACACCCATTGCTCCCACAGTCTCCCAGNCTCCACTTT
GGTCCCCAGCGCTGTCTGCCCAGGATTTGCCTGAAGGCTGCCCCAACTCTGCACCCGC
CCCCGAGGGGCCACCGAGGACCATGACTAAGACAGATCCTGCCCCGATGGCCCCGCCACC
CCGAGGAGAGGAGGAAGAAGAGGAGGAGGAGGATGAACCCGTCCCCGAGGCCCCAGCCC
CACCCAGGAGCGCCGGCAGAAGCCTGTTGTGCACCCCTCGGCACCTGCCCCCTCCCTAA
GGACTACGCTTTCACCTTCTTCGATCCCAATGACCCGGCGTGCCAGGAGATCCTGTTTGA
CCCTCAGACCACCATCCCCGAGCTGTTTGCCATTGTGCGCCAGTGGGTGCCCCAA

Sequence 1790

CGGGGTCTTCTTGCTGTGAGGTGCGGTTCCCCAGTGTTACGGAGGGTCCTTGAGGCAAGG
AGTGAAAATTGGGTCTGGGGGTAGTCTGGGGTGGAGGTCTGGGCACGCCGGGTCCGAC
CCCTNCATCTTCGNTTTGCACACCCCGCTTTCAGCGCGGAGTCCGCGCGGGTAGGG
CNGGCGTCNCGTGCGTGACGTATCCAGCGCGCCTNCGAGGCTNCAGTGGCCTTGACC
TCCCGCGNGTGCGGAGGCTGCGCGCGATGCTGCANTTTCGTCCGGGCCGGGCGNGCGGG
CCTGGCTT

Sequence 1791

GGGTTATGAGAAGAACGCTCAGAGCAGAGCACCGAAAGTGGCCACTACCAGCATGAAGAG
CCCAACAATTCAAAGTGNAGAAGTGAGAAAAACAGAATGCAGCTTTCAGGTTTCGTTTC
AAGCAGTTGGCTTGTGGGACTCTGAGAGATGCTGCTGNCCATGACATGCGGGAATTATCA
TGATCAACTACCCAGCTTGGATTTACCCAGTGGCCAACTAGCTTTGTGTGGGAGACGGC
AAGGGTTGGATTTTCAAAGAGTAAACCAGACCCGTGACCAAGGTGTNAACTAAGAAGT
GGAGTCATGCTTACACCGGNONTATCNTGCTGGCAGCCATTCTGGGTCTGGCTGTGGTG
TTAATCTTCATGGGATCC

Sequence 1792

GTGCTGGTTTNTCTTGACAGATGCTGCTGCTAGGGGTGGTGGGAAGCAGCCGTGGGACGCG
TGGCCGGNAGCGGNGGTGACAGCCTGGGANNNCGGGGGCTTNTCTTCCTTGTCTCCTCC
TNTCCTGTCTATTCCCAGNGNGGGGCGTGCTGACACTAAAGACTNTGTANNCATCAACC
CGAGTGCAANTTTCNATGGAAAATGAAGTTGCACGTTTTCAAAAAATACCTAATGGTGAA
AATGAGACAATGATTTGCTGTATTGNCANCAAAAAAAGCAAAGGNNATTNCCANTCATT
GAAGNTGCAAGCATTCTNCAAGCTGATCTTCNAAATGGGTCTAAACAAAATGTNAAAGNTA
AGTTCNTNAGGCNAGCCCTTTTCATGGTTTNGAAATGAGNTTTCGNTTTTTATGTGAAGN
TGGAGGCCNCCNTGTNGGGAAGAAANGTNTNTTTCNCCAGGTTTTNAAAA

Sequence 1793

GTCCGTTTTACAACCTAGTAATAATGTGGATAAATGTATCTACATGACACATGTCAAGAC
CAAAATAACTGTGAATGACACACCTTGCTGTAAATGAAGTGTGCTAACCCCTGACTGTGGG
CTTGAGAACAAAGATGAAGTCTAGAAGTCTAGCAGCCTAACTGCTGCTTCTCAAATAACT
GTGTGAACAGTGAGATATTACTGTTTGTCTAAAAATCCTACTGTGCCAGTTTCCTTC
ACTACATGCCCTGCATTTTTTTATTTAAATATTTAGCTGTAGCGCCATCAGATATGGATGC
CTTCTAACAATTGCTGTTTGTAAATAAATCAGGATGGTAGAAAGTGATTATATGGAAAA
TTGGAACCTGGATGAGACCTTTTCGTTGAATTCTGAAGAGTAATGATGTGAAAATTGATA
CAGGGCAAGAGATGATTCTTTTGGGTTTTCTTCTACTTCATGTCCAGAAGAGTAAGAGGG
GAAAA

Sequence 1794

TNGTTGCCTGCAATACTACACTTTACAAACAATGTTAACTGTGATTCTTCATTGTTT
TAAGAAGTTAACCTAGGGCCGGGCATGGTGGCTCATACCTGTAATCCTAGCACTCTGGGA
GGCCGAGGCAGGAGGATCCCTTTAGCCCAGGAGTTAAAGACCAGCCTGGGCAACATAGGG
AGACCCTGTCTTTTTTTGGGCAGCGTGGTGGGGGATAAATAAATAAAGGAAAAAAGG
TTAGCCTAGAAATTAATTAATTGAATTCATCTAAAGATGTCTCTGGTGATTTTT
ATATGTTCCGCTATATAATTGATGCTTTATAGTTTTATCATAATCCAACAACCTCAGTTA

TABLE 1

297/467

TATTTAATTATTGGTAANGGAGTTTAAGACTNGAAAGACTAGAGTGCTTTCTAGTCCAAA
TAGAGGGTCANGTGAAACCAGCTTTTTGACATCAAGATTTTCATTTTGAGAAGGGANAAG
CCTGTGGGACTGGGCTTAAA

Sequence 1795

GTCCGGAGAAAAGTGAAGTGGCCAGNTCCTCTTCTCCACCAATAGATGCAGCATCCGC
AGAGCCCTATGGCTTCCGTGCCTCAGTGTTATTCGATAACAATGCAACACCATCTAGCCTT
GAATAGAGATTTGTCCACACCTGGCCTGGAGAAGGACAGTGGAGGGAAGACACCTGGTGA
CTTTAGCTATGCCTATCAAAAGCCTGAGGAAACAACCAGGTCCCCAGATGAAGAAGATTA
TGACTTGAGTTATGAGAAGACCACCCGGACCTCAGATGTGGGTGGCTATTACTATAGAAA
ATAGAGAGAACCACAAAATCTCCAAGTGACAGTGGCTACTCCTATGAGACCATTGGGGAA
AACTACCAAGACCCCTGAAGGATGGTGACTATTCTATGAA

Sequence 1796

CCGGCNTAGGCGGGGGGAACACGCCGCCTGCGCTCTTGGGACCCTAGATTTGGGGGAG
GAGGTAACGAGAGGCGGAGAGGGTGGCTCCTCAAATATACACCCCTCCTGTCCTCCGCCA
CCCCACCTTTGATTTCTTCCCTCAACCCAGCACTCCAGCCCCACCCAGGGTCAATTT
TTGCCCCCTTCCATCTGAGCAGTGTTACCAGGCCCCAGGGGGACCGGAGGATCGGGGGCC
GGGTGGGGGGTCCCATGGAGTACTCCAGCACACGCAGGGGGCTCCCTGCAGACAGGGGGG
CCTTCGCCCTGGAAGCCTGGACGCCGAGATAGACTTTCTGAGCAGCACGCTGGCCGAGCT
GAATGGGGGGTCCGGGTCTGCGGTACGGCGACCGAGACCGACAGGCATATGAGCC

Sequence 1797

TCCGATTNNGCCNAGGGTTGCAGTTTGTAGACCCCTGATCTAGACCCTTAAGTAGCCTTG
TTTGTGCCTGAAGTTTACAGATGATCCCCAACTATTTTTATTTTATTTTGTAGATGG
AGTCTCTCTCTGGAGCCCAGGTTGGAGTACAGTGGCAAGATCTTGGCTCACTGCAACCTC
CACATTCGGGTTCAAGTAATCTCCCGCCTCAGCTTCTGAGTAGCTGGGATTACAGGC
GTGTGCCACCATGCCAGCTTTTTGTATTTGTATGTTAGCCATGTTGGCAAGGCTGGCC
TCAACCCCTGACCTCAAGTGATCTGCCACCTCAGCCTCCCAAAGTGCTGGGATTACAGG
AGTGAGCCACCATGCCCGAACCCCAACTTATGTTTGACTTACAATGTTTGGACTTTATGG
ATGGTGCAAATGTTATATGCATTTAGNAGAACTGGGCTTCAAATTTTGAATTTTGA
ATCTTTTTATTTT

Sequence 1798

TCCGCTGCCGAAGTCAGTTCCTTGTGGAGCCGGAGCTGGGCGCGGATTGCGCGAGGCACC
GAGGCACTCAGAGGAGGTGAGAGAGCGGCGGCAGACNACAGGGGACCCCGGGCCGGCGGC
CCAGAGCCGAGCCAAGCGTGCCCGCGTGTGTCCCTGCGTGTCCGCGAGGATGCGTGTTCG
CGGGTGTGTGCTGCGTTACAGGTGTTTCTGCGGCAGGCGCCATGTCAGAACCGGCTGGG
GATGTCCGTGAGAACCCATGCGGCAGCAAGGCCTGCCGCCGCTCTTCGGCCCAGTGAGC
AGCGAGCAGCTGAGCCGCGACTGTGATGCGCTAATGGCGGGCTGCATCCANGAGGCCCG
TGAGCGATGGAACCTTCGACTTTGTACCGAGACACCACTGGGAGGGTGAACTTTTNCCTT
GGAANCCTTTTGGGGGGCCTTGGCCTGCCCAAGCTNTACCTTTTCAAACGGGGCCCCGG
CGAG

Sequence 1799

GGCGNAGCTCGNCTTCTCCNCGCCCAAGTTCCGGCGCCGCTCTTGCGGGAGCGTGCCGC
ATCACCCCGGGGGCCCTACGCGAGGATCTCCGGGGCCGTTGGCAGCAGCCTG

Sequence 1800

TCACCCCGCGTCCGGGCGGGCGTGGGGCGGTGGGAGGTAGTGAAGAAGGGTCGGCGGCCT
GGGGTCGGGCGCGGCGCGGCGGCGGAGGAGGCGGTAGGAACCGCAGGGCGCTCGGGGAA
GCAAACNGAGTGTGGAATAACNACCTGACCCCTGCAATCCAGACCACAAGCACCCCTTAT
NAGCGGNGCTTTNAGAATATCATNAAGNGNTTAAATAAGGAGCAGGTCCCACCCCTGC
TGTGGAA

Sequence 1801

GTCGACCCACGCGTCCGGGAGCAGAGTCACTGGGAGCGACCGAGCGGGCCGCCGCCGCC
GCCATGAACCCCGAATATGACTACCTGTTAAGCTGCTTTTGATTGGCGACTCAGGCGTG

TABLE 1
298/467

GGCAAGTCATGCCTGCTCCTGCGGTTTGCTGATGACACGTACACAGAGAGCTACATCAGC
ACCATCGGGGTGGACTTCAAGATCCGAACCATCGAGCTGGATGGCAAACTATCAAACCT
CAGATCTGGGACACAGCGGGCCAGGAACGGTTCGGGACCATCACTTCCAGCTACTACCGG
GGGGCTCATGGCATCATCGTGGTGTATGACGTCACTGACCAGGAATCCTACGCCAACGTG
AAAGCAGTGGCTGCAGGAGATTGACCGCTATGCCAGCCGAGAACGTCAATAAAGCTCCTG
GTGGGGCAACAAAGAGCGGACCCTCACCACCAAGAAGGTNNGTGGGACCAACACCACAA
GCCAAGGGAGGTTTGGCAAGACTTCTTTTGGGGCATT

Sequence 1802

NCCCCGCGTCCGCGGACGCGTGGGCGGAGCTGCTGTGCAGTGGAACGCGCTGGGCCGCGG
GCAGCGTCGCTCACGCGGAGCAGAGCTGAGCTGAAGCGGGACCGGAGCCCGAGCAGCC
GCCGCCATGGCAATCAAATTTCTGGAAGTCATCAAGCCCTTCTGTGTCATCCTGCCGGAA
ATTGAGAAGCCAGAGAGGAAGATTGAGTTTAAGGAGAAAGTGCTGTGGACCGCTATCACC
CTCTTTATCTTCTTAGTGTGCTGCCAGATTCCCTGTTTGGGATCATGTCTTCAGATTCA
GCTGACCCTTTCTATTGGATGAGAGTGATTCTAGCCTCTAACAGAGGCACATTGATGGAG
CTAGGGATCTCTCCTATTGTCACGTCTGGCCTTATAATGCAACTCTTGGCTGGCGCCAAG
ATAATTGAAGTTGGTGACACCCCAAAAGACCGAGCTCTTCTTCAACGGAGCCCAAAAGTT
ATTTGGCATGATCA

Sequence 1803

CGCGTCCGCGCTTCTGTTACGGCCAGTGCAACTCTTTCTACATCCCCAGGCACATCCGGA
AGGAGGAAGGTTCTTTTCTGCTCCTTCTGCAAGCCCAAGAAATCACTACCATGA
TGGTCACACTCAACTGCCCTGAAGTACAGCCACCTACCAAGAAGAAGAGAGTCACACGTG
TGAAGCAGTGTGTTGCATATCCATCGATTGGATTAAGCCAAATCCAGGTGACCCAGC
ATGTCTAGGAATGCAGCCCCAGGAAGTCCCAGACCTAAAACAACCAGATTCTTACTTGG
CTTAAACCTAGAGGCCAGAAGAACCCCGAGCTGCCTCCTGGCAGGAGCCTGCTTGTGCCG
TAGTTGCTGTGCATGAAGTGTGGATGGGTGCCTGTGGGGGTGGTTTTTAGGACACCAGAA
GAAAACACAGTCTCTTGTAGAGAGCACTCCCTATTTTGTAAACATATCTGCTTTAAGGG
GGATGTACCAGAAACCCACCTTACCC

Sequence 1804

CCCGCGTCCGTAGATTAAATTATGCAAGTTGCAAGAATGTAGTAACTCTGATCAGCTACA
AGGAAAGGAGGAAAGAGTAAATGAAGAAAGTCATCTAACTGAAAAGGAATATATAGAACA
TTGTAACACCCCTACAAGTATTCTGATTCTATAGCAGTTAAAGCACTACAAATAGA
TAGCTTTGGTTTACATGCTTTCAACAAGAGTCTCTTGATGTTTCTCAAATGATACT
TGGAAAATCTCAGCAACCTGAGTCAAAATGCAATCTGAATTTATAAAAGAAAAAGTGC
TACTTGTTCAAATGAGGAAAAAGGTAACCTAAACGAGGTGAGTAATAACTGAAGAGAAAG
AAACAGATGGGAGATCACCTATCTTCACTACTGAACCAAACTACCNGTTCACAATATA
CCTGGATTCGACAGCATAAAAGAAACC

Sequence 1805

GCGTCCGGCAGCTGAAAGGGGATTTGGGCCCGGAAGATCCGAGTCCATCCGCGGCGGGGA
GAGGGCAAGCGGGACCGGTAGGGGCCGGAGCAGCGGCGGCGGCTCGGACTGTCCCATC
CGCCCCGTATTGAGGCGCTGGGAGCGGCGGGGCGACAGGAAAGCGATGGTGAAAGCGGGG
CCGTGAGGGGGGCGGAGCCGGGAGCCGGACCCGCGAGTAGCGGCAGCAGCGGCGCGCCCTC
CCAGAGTTCAGACCCAGGAAGCGGCCGGGAGGGCAGGAGCGAATCGGGCCGCCGCCCA
TGGAGCTGAGAGTCGGGAACAGGTACCCGGCTGGGCCGGAAGATCGGCAGCGGCTC

Sequence 1806

GTCGCCCCGCGTCCGCACAGTTGATTCTGAATTTTAAAGGCTTTCCTAATAGGCTGATCA
CAGAGAATAATCCATTTTGAAGGTATAAACTGCACTGTATGTCTGTCACTTGTAGCTGA
ACTGATTCACATTTTGACAAAAGAGAGAAAATACAAAATGAGTTTTCGAAATGTAATAA
CTTTTTCTGCATATAGAACTAAATAATTGAAAATATGGGCTATAGTTCTCAAAGGTAGA
TAGTAAATCACTGGCTTTTCCAGCTGTATGTTTTCCACTGTGCGTGTACACACACAC
TGGAAAATAATTAGGCTGATTTTGCAGGTCTTCATTGTTAGAGATTCTGAAGTATTTACT
GTCAATTCATAGGTTTCAGTTTATTTAGGAAATTAGTGTTTGACAGCTTTTTTAAATTA

TABLE 1
299/467

TTTCACTGAAGCTGAGATTATTAGTGATCAAAGTTAAAATTTCAATATTTAATTTCTCTA
TATATTATTAATATTAATAATGGTTT

Sequence 1807

GTCGACCCCGCGTCCGGTACTACATCCCCTGAAGAAACATGTGCCAGGTGATTCTGTGAA
GCTAAGAGAACAGCACCAAGTATAGTGTATGTTCTCATATCCACGTGTGGTGGGAAATA
GTTGGACCGACACTTAAAGCCACATTTACCACATTATTACAGAATATTCCTTCATTTGCT
CCAGTTTTACTACTTGCAACTTCTGACAAACCCCATTCGGCTTTGCCAGAAGAGGTGCAA
GAATTGTTTATCCGTGATTATGGAGAGATTTTTAATGTCCAGTTACCGGATAAAGAAGAA
CGGACAAAATTTTTGAAGATTTAATTCTAAACAAGCTGCTAAGCCTCCTATATCAAAA
AAGAAAGCAGTTTTGCAGGCTTTGGGAGGTACTCCAGTAGCACCACCACCTG

Sequence 1808

CCCCGCGTCCGGCCTTTAAAGAAGACTTGAATTCCTATGGAACAATAAAGACACAGCAG
AAAACAGGGATTCTCCTGTTTCAGAGGAAAAATAAAATGACCTGTCAACAATTTATCCATT
ATCACCGTGACCTCTGTATCCGAAACATTGTCAAAGAAAGAAGGTGTGGTGCAAAGACTT
CTGCTGGAACTTTCTGTGGCTGTGACCTGGTGAGCTGGCTAATTGAAGTCGGCCTTGCCCT
CCGACCGTGGTGAAGCTGTGATATACGGAGACAGGCTGGTACAAGGGGGAGTCATCCAAC
ATATTACCAACGAGTATGAATTCGGGATGAGTACTTGTTTTACAGATTTCTTCAAAAGA
GTCCTGAACAGAGTCTCCTGCTATTAATGCAAACACTCTCCAACAGGAAAGATATAAAG
AAATTGAGCATTATCCCCACCCTCACATTCCCCTAAGACCTAAATTATGCAGGGGAGAA
CCCTACATGGAATCAT

Sequence 1809

CGCGTCCGCTGGAGTGCTGCTGAGGAGCGANGGGCCCATCTGGGGTCTCTGGAAGTCGGT
GCCAGGCCTGAAGGATAGCCCCCTTGCGCTTCCCTGGGCTGCGGCCGGCCTTCTCAGA
ACGAAGGGCAGTCTTCCACCCCGCGGCGCAGGTGACCGCTGCCATGGCTTTTCCCCATC
GGCCGGACGCCCCCTGAGCTGCCTGACTTCTCCATGCTGAAGAGGCTGGCTCGAGACCAGC
TCATCTATCTGCTGGAGCAGCTTCTGGAAGGATTTATTCATTGAGGCAGATCTCA
TGAGCCCTTTGGATCGAATTGCCAATGTCTCCATCCTGAAGCAACACGAAGTAGACAAGC
TATACAAGGTGGAGAACAAGCCAGCCCTCAGCTCCAATGAACAATTGTGCTTCTTGGTCA
GACCCCGCATCAAGAATATGCGATACATTGCCAGTCTTGTCAATGCTGACAAATTGGCTG
GCCGAA

Sequence 1810

CGCGTCCGGTGCATCTGAGGACTGGTGGGAAGGCANGGCACAACGGGATTGACGGGCTGG
TGCTCACCAGTATATAGTGGTGCAGGATATGGATGATACGTTTTAGACACTCTGAGCC
AAAAAGCCGACAGTGAGGCCAGCAGTGGGCCAGTCACGGAAGACAAGTCTCATCCAAGG
ACATGAACCTCCCCGACAGACCGTCATCCTGACGGCTATTTAGCCAGGCAACGAAAAAGAG
GAGAGCCACCCCTCCAGTAAGGCGTCTGCGCAGGACCAGTGAT

Sequence 1811

TCAGGAGTCGACCCCGCGTCCGGAAGGCCGATGCTGTGGGGGTGGGCGTGGAGAGAATTC
TTCTGTGGGTCTCTGGTGTGAGTGGTGGGCTTGGTGTGGTGTGCGGAGGAGCTCCAGG
CCCGTCCGGCGCGGAGTGGTCTCACGTGTGAAACATGGCTACAGATTGGCTGGGAAGTATT
GTGTCCATCAATTGTGGAGATAGCTTGGGTGTCTATCAGGGAAGAGTGTGAGCTGTGGAT
CAGGTGAGCCAGACCATTTCTCTACCCGGCCTTTCCATAATGGAGTGAAGTGTCTTGT
CCAGAAGTCACCTTCAGGGCAGGTGACATTACGGAGTTAAAAATTCTGGAGATACCAGGA
CCTGGAGACAACCAACATTTTGGAGACCTTCATCAACAGAATTAGGCCCTCTGGTGTCT
GGCTGCCAAGTGGGCATCAATCAGAATGGCACAGGCAAGTTTGTCAAG

Sequence 1812

CCGCGTCCGCCAGTCCNAGTGCTGGCTTTCCCTGTATCTGCCTCTGCCAGGCAACACTT
ATCATGGCTCCCAATCAGCAGGAGCCTCCATGCTCCACTTTGAACAGCCTCTATGCTCCA
GCAATGGGGCATTTGTGAAGAGTGACTTGATTAACTTTTCTGACCATGGGTATAATACAG
TTGCTTCAGAGGGCAGTGGTCTGGGTGTGATTTTTACACTGTAACATTGTATACAGTGT
CATGGATAATTACTATTTTTTTCTGGTCATTAACACTCACCTACTCTAGTACTAGGATTT

TABLE 1
300/467

CAGACCAAGGTCTCATGACGCCTGGATATTTTAGTATCTATATCCAATAATCTTTTCTC
TCCTACTGAATATCCAGGCAAAGATGAAATCGTTTTCTTTAAACTGTCAAATCTGTAA
AACTCAGGAGCCAGTTCAAGGGAACAAGCATCTTACAATAGATGGAATCAAGAGTTAAA
TGTTATAGTGGCAAGCTTGTCTACTGGGCAACAGAC

Sequence 1813

CGCGTCCGCCCGCGCTCCGCTCCCGGTCCCTGGCCCCCTCAGCGGCATGGCGTGCGGGGC
GACGCTGAAGCGGCCCATGGAGTTCGAGGCGGCGCTGCTGAGCCCCGGCTCCCCGAAGCG
GCGGCGCTGCGCCCCCTCTGCCCGGCCCACTCCGGGCCTCAGGCCCCCGGACGCCGAGCC
GCCGCCGCGCTTTCAGACGCAGACCCACCGCAGAGTCTGCAGCAGCCCCGCCCGCCCGG
CAGCGAGCGGCGCCTTCCAACCTCCGGAGCAAATTTTTCAGAACATAAAACAAGAATATAG
TCGTTATCAAGAGGTGGAGACATTTAGAAGTTGTTCTTAATCAGAGTGAAGGCTTGTGCT
TCGGGAAAGTCAACCTCACTCCTCAGCACTCACAGCACCTAGCTCTTCCAGGTTCTCAT
GGATGAAGAAGGACCAGCCCACATTTACC

Sequence 1814

CGCGTCCGTTGAAGAATAATATTGTATGTGCATTTTATCCATTAATGTTTCATACTTTCT
GAGAGTATAATACCCTTTTAAAGATATTTGGTATACCAATACTTTTCTGGATTGAAAA
CTTTTTTTAACTTTTTTAAATTTGGGCCACTCTGTATGCATATGTTTGGTCTTGTTAA
GAGGAAGAAAGGATGTGTGTTATACTGTACCTGTGAATGTTGATACAGTTACAATTTATT
TGACAAAGTTGTAATTCTAGAATATGCTTAATAAAATGAAACTGGCCATGACTACAGCC
AGAACTGTTATGAGATTAACATTTCTATTGAGAAGCTTTTGAGTAAAGTACTGTATTTGT
TCATGAAGATGACTGAGATGGTAACACTTTTCGTGTAGCTTAAGGAAATGGGGCAGAATTT
CGTAAATGCCTGTTGTGCAGATGTGTTTTCCCTGAATGCTTTCGTATTAGTGGCGACCAG
T

Sequence 1815

GTCGCCCCGCGTCCGATTTAAACTGGGTCTTTATAAAAGTAAATGGCCAACATTTAATT
ATTTTGCAAAGCAACCTAAGAGCTAAAGATGTAATTTTCTTGCNATTGTAAATCTTTTG
TGCTCTCGTAAGACTTCCCTTAAATTAGCTCTGAGTGAAAAATCAAAAGAGACAAANGA
CNTNTTCGANTCCANNTTTAAGGCTGGGGGAAANTGGGTTTTTAGCNCAACCNTTNCA
AAGTTTTNTTNGGGATTTCATAACANCNCACCAATGNTTTTTTGTGTCANACATT
CATTTCAATACTAGTTATATTNANNAGGAGTNGGTAGAGAGGAAACATTTGACTTATCTG
GNAAAAGCAAACCTGTACTTAAGAATAAGAATAACATGGNCCATT

Sequence 1816

TCGACCCCGCGTCCGCTCTGCTCCTTGTCTCCTCTCCTCTTTTCTGTCTTTGCCGGGTC
TCTGGGTCTCTGACCCCATCCGGCCCTCATGGCTTTGGGTGNGGAGCTNTTGAAGCAAT
GTTTCATCAT

Sequence 1817

CCACGCGTCCGGGGGAGCCGGACGCCAGAGTCCCTCTCCACGCCGTGCAGCTGCGCTGG
GGCCCCCGGCGCCGACCCCGCTGCTGCCGCTGCTGTTGCTGCTGCTGCCGCCGCCACCC
AGGGTCGGGGGCTTCAACTTAGACGCGGAGGCCCCAGCAGTACTCTCGGGGCCCGGGGC
TCCTTCTTCGGATTCTCAGTGGAGTTTTACCGGCCGGGAACAGACTGGGGTCAGTGTGCT
GGTGGGAGCACCCAAGGCTAATACCAGCCAGCCAGGAGTGTGTCAGGGTGGTGTGCTA
CCTCTGTCTTTGGGGGTGCCAGCCCCACACAGTGCACCCCATTTGAATTTGACAGCAAA
GGCTCTCGGCTCCTGGAGTCTTACTGTCCAGCTCAGAGGGAGAGGAGCCTGTGGAGTAC
AAGTCTTTGCAAGTGGTTTCGGGGCCAACAGTTCGAGC

Sequence 1818

TCGACCCACGCGTCCGGTGAAACACAAAACCAAGGAGTACATTAAGAAGTACATGCAGAA
GTTTGGGGCTGTTTACAAACCCAAAGAGGACACTGAATTAGAGNGACTGTTGGGCCAGGG
TGGGAGGATGGGTGGTCAGGTAANGACAAGACTCTAGGGNAGAAGGAAANCCTGTGGGCC
TTTNTGTCCACCCCTGTCAGCACTGGTGCTACTGATTGATACATNACCCTGGGGGGNAA
TTNAACCCCTGCCAGNATGTCAACNTGGAANGGCCACAAAGAAGTGAACCTCCCATCTAC
AAAAANGAGTTTACNCTTANATTTTGTAGAAGCCTNGTTTGGCCATTGTTGCNNNTAGAN

TABLE 1
301/467

AGTCCATNNANTAGGNGGCAAGGGGGCCTNTANTAAAAATGAACCCCTGGNACAGAACCT
TGNACTTNCACATTCTTTAAANCCCTGGGAGATGNTTTGCTTTCTNTGGGNCNGTTGN
TTTGNTTCAAGCTGCTACNAAGTAACTCTCAATGGCCGGCAATTATCCCCAACTCNCACN
AAACTCCNTTTTTAACCCCTGGCANGGAATCCTTGCAAATTAATAATTTTTTAAATGGG

Sequence 1819

GTCCGGCTTTAGTGAATTCTTAATAGATNGTATATATAAAAGTACATTTTAAATAGAAAGC
CAGGGTTTTAAGGAATTTACATGTATAAGGTGGCTCCATAGCTTTATTTGTAAGTAGGC
TGGATAAATGGTGCTTAAATGGTAATGTACTCCACTTCTTCCTATTGGAAGATTAACATT
ATTTACCAAGAAGGACTTAAGGGAGTAGGGGGCGCAGATTAGCATTGCTCAAGAGTATGT
AAAAAAAAAAAAAAAAANGAACCAAACTGGAATAATCAAATGCAAAAAGGTAA
CAAATTCATAACTGGAAAGCAAAGAGAAGAACAAGTATGATTTGGATGATAAAGCATTGT
TTTAAATGGTGAAGAACTTACCAGATCACTTAATGTTTCTAGGAGGTAACTTCAAGTGGG
CAANTGGGGGTTTTAGGTAGGTGAGTGGCCCTAAGTTCCTAAAGCCCACAGATTAGGGA
TCTGTAAACTGAATGGTCTGTTGGAAGGTTTTGTTTAACTGCTTGGGAGGCTTTCCT
TTTAAG

Sequence 1820

GCGTCCGGGAAAGTTTTGCCTTCCANGCCGAAGTTAACAGAATGATGAAACTTATNATCA
ATTCAATTGTATAAAATAAGAGATTTTCTGAGAGNACTGATTTCAAATGCTTCTGATG
CTTTAGATAAGATAAGGCTAATATCACTGGACTGATGAAAAATTGCTCTTTNTGGAAAT
GGAGGAACTAACAAGTCAAAAATTAAGTGTGATAAGNGAGAAGAACCCTGCTGCATGTC
ACAGACACCTGGTTGTCTGGAAATGACCAGTAGAAGAGTTGGGTNTAAAAACCTNTGGT
ACNCATTAGTCCAAATCTGGGACAAGNCGGAGTTTTTTAAAACAAAAATTGACTTGAAAG
CCACCAGGGAAAGATGGCTCAGTTCAAACTTTTTTGAATNTGGATTGGGCCAGTTATG
GTGGTCCGGTTTTNCTATTTCCNCCTTTCCCTTGTAGCAGATTNAAGGTTTATTTNGTC
ACTTTCAAAAAACAACAAACAAACNGATTACCCCAAGCAACATCTTGGGGGAGNTCTTGA
CTTCCAAATG

Sequence 1821

CGTCCGCGGGTAAATGTTATGGTAAGCATGCACANGTTTGCAGTCTACAGTTTTTTTAT
GTAGCACAAAATAGGTGTACCTTTATAAGTACATTCAATTTTATGATTACATTTATCAT
GTAATTTTTAAAAAATCCATCTATCTAGGATATGTTGGATACAAAGTCTGCTTTTGCTA
TTCTTTTTGCTTAAATCTCCTATCATTTTCTGAATTACTTGGTATTTAGAACTCCTAGC
ACCACGGGGGAAGAATAGAGGTATCATCAAACGTGGCAAATTTTCTTTCAGGAATAATAAA
GAGCATGATTCCACAGCTTTTCTGGGGATGTTTGAGATTCTTTTTTAGTACTAAGCAAAA
TTCTCATCACAGGAATGTAGCCCAGGCCAATTTATACTAAATCTCTATTTTGTTCCGGAT
GATGCTTCTAAACAGCATTGATAGGTTAAAGAAGCTTGGGTATTTTAAATTTACTTCAA
TGATTAGCTCAATTGCTTCTGGGAGTTTTAATCCTGTGGATATGTCAT

Sequence 1822

GGGCGCCCCGCGTCCGCTGATCTCGGGCTCCTATTTCAATTACATTGTGTGCACACCAAC
GTAACCAGTGGGAAAACTTTAGAGGGTACTTAAACCCAGAAAATTCTGAAACCGGGCTC
TTGAGCCGCTATCCTCGGGCCTGCTCCCACCCTGTGGAGTGCATTTTCTTTTCAATAAA
TCTCTGCTTTTGTGCTTCATTCTTTCCTTGCTTTGTTTGTGTGTTTGTCCAGTTCTTTG
TTCAACACGCCAAGAACCTGGACACTCTTCACTGGTAACATATTTTGGCAAGCCAACCAG
GAGAAAAGAAATTTCTGCTTGGACACTGCATAGCTGCTGGGAAAATGAACATCAGTGTTGA
TTTGGAAACGAATTATGCCGAGNTTGGTTCTAGATGTGGGAAGAGTCACTCTTGGAGAGA
ACAGTANGAAAAAATGAAGGATTGAAACTGAGAAAAAAGCAGATGAAAGTGCTCACG
AGCTATGTGTGCTCTGCTCAATTCTGGG

Sequence 1823

CCCCGCGTCCGGTCTTTGGCACTGTCATNTGTGTCCCTCGAGTGAGCNTCACCAGAGCT
GCAGTAANNNGNCACCTACTACNGGCTCTGNGCTGAGTCCTTCCAGTGNGCCTCTCACTG
AATNCTCACCCCACTGNCATGAGGTTTNCCTTATTTGACTGATGAGGGTGNAGAGCCAGG

TABLE 1
302/467

GAGCCTTGNTCACTGGTTCATTGANTACATTTACAAATATTATTNACAGAGTGGGAGAAG
AGCCGTATAGGGNCTTAATGCCATGGTNGGGACTTTGGAATTTAATTCAAGTGATGTGGG
AGTACCTGCCAGATGGATGGAGGGTGAAATAATGCTTAAGCCCTCAGCC

Sequence 1824

CGCCACGCGTCCGCACCGGCCCGATGAGCTGCAGCGGCTCCGGCGCGGACCCCGAGGCG
GCTGCCGGCCTCCGCCGCCTCGGCCCGGGCCCCGCGCCCCCGGACTNGGCTCCCGCCGC
GCTGCCCTCCAGCACCGCCGCGGAGAACAAAGGNCAGCCCCGNGGGGACAGGNNGGGA
GGACCTGGGNGCTNGGAGCAAGCATGCTGGGGGGCACAGGGACCCTTTGGCGGGAAGCCG
GGCCGGTAGAGCNCAGCNTGAAGCAGGNTNTGAGGAGCTGGNTCCCTGNGNATNGGNNGA
GGATGGGCCGCGNGGANGCCCTCTCCGNGAAGGGGGGNGCTCAATAATCTTAACCGGGGGG
TTTNA

Sequence 1825

CGCGTCCGGCTGAAGGCTCCCTGGGNTTCTGGCCTCCTGGGGCAGAANGGGAGAGAAA
GGCGATGCTGGCAACTCCATTGGAGGAGGCAGAGGGNACCTGGCCCTCCAGGGCTCCCT
GGGCCCCAGGGCCAAAGGGAGAGAGCAGGTGTCCGATGGCCAGGTTGGCCCCCAGGGCA
GCCAGGAGACAAGGGGGAGCGTGGAGCAGCTGGAGAACAGGGACCAGATGGCCCCAAGGG
CTCCAAGGGAGAACAGGGAAAGGAGAGATGGTGGATTACAATGGAAACATCAATGAGGC
TCTCCAGGAGATCCGGACGCTGGCCTTGATGGGGCCTCCTGGTCTTCTGGGCAAATTGG
CCCACCTGGAGCTCCAGGGATTNCAGGCCAGAAGGGGGAGATTTGACTGCCANGGCCCTT
CAGGACACGATGGGGAAA

Sequence 1826

GTCGACCACGCGTCCGGTTTTTTTTTTTTTGGAGACAGAGTTTTGCTCTTGTTGCCAGG
CTGGAGTGTGATGGCTCGATCTTGGCTCACCACAACCTCTGCCTCCTGGGTTCAAGCAAT
TCTCCTGCCTCAGCCTCTTGAGTAGCTTGGTTTATAGGCGCATGCCACCATGCCTGGCTA
ATTTTGTGTTTTAGTAGAGACAGGGTTTCTCCATGTTGGTCAGGCTGGTCTCAAACCTC
CAACCTCAGGTGATCTGCCCTCCTTGGCCTCCAGAGTGCTGGGATTACAGGTGTGAGCC
ACTGTGCCGGGGCCCGTCCCCTCCTTTTTAGGCCTGAATACAAAGTAGAAGATCACTTTC
CTTCACTGTGCTGAGAATTTCTAGATACTACAGTTCTTACTCCTCTCTTCCCTTTGTTAT
TCAAGTGTGACCAGGATGGCGGGAGGGGGATCTGTGCTACTGTAGGTACTGTGCCCAGGA
AGGC

Sequence 1827

CGACCNCGCGTCCGGCACTCTGTTCTTCCGCCGCTCCGCCGTCGCGTTTTCTCTGCCGGTG
AGCGCCCCGCCCCGGGGCCTGAGCTGGACGTGCGAGGCCTGCGCCCCCGACCCCGGCTG
GCCCCGCTTCCAGCTGCCGAGGCCTCGTCCGCGCTTCCCCGGGAACAAAGGCGGGGTG
CAATGGAAGAAGAGATCGCCGCGCTGGTCATTGACAATGGCTCCGGCATGTGCAAAGCTG
GTTTTGCTGGGGACGACGCTCCCCGAGCCGTGTTTCTTCCATCGTCGGGCGCCCCAGAC
ACCAGGGCGTCATGGTGGGCATGGNCCAGAAGGACTCCTACGTGGGCGAC

Sequence 1828

CNCCACGCGTCCGGACCGGGGAAGACGCCTCTTCGCCGCCTCCGAAAACCGAGGCAGCGA
GCGACCCCGAGCATCCCGCGGCCTCCGAAGGGGGCGACGCCCGCCGCGCTCGCCGCCAC
TGCTGCGCTGCCTAGTGCTCACCGGCTTTGGAGGCTACGACAAGGTGAAGCTGCAGAGCC
GGCCGGCAGCGCCCCCGGCCCTGGGCCCGGCCAGCTGACGCTGCGTCTCGGGGCTGCG
GGCTCAACTTCGACAGACCTCATGGCTAGGCAGGGGCTGTACGACCGTCTCCCGCCGCTGC
CTGTCACTCCGGGCATTGGAGGGCGCCGGGGTGTNTGATCCGCAGTGGGCGAGGGGAGT
CAGCGACCGCAAGGCAGGAGACCGGNTGATGGTGTGAAC

Sequence 1829

GGTGTGCCCCGCGTCCGCTTGTCTTTTTTGGGGGTGTGAATTTTTTGCATTGTTCTGAT
CATATTTCTTATCATGTAATTTATGTTCTTTTTTACTAAGTATTATGTGTGGTTATTATA
GATTTTCAAAAGATATATTGCTGGTAATATATTTTATTGTGTAGTCTTATAATTTACTT
AACCTTCTTTCAATTGTTAGAAATTTAGGCTATTTCCAGATTTTCAGTATTGTAAATAAT
GCTGTGATGACCAATTTTGTGAATAAAATGTTTTATGTATTTTCAATTATCCCTTAGG

TABLE 1

303/467

ATAGTCTCTCAGTGCCAAGTTGTCAAAAACATCTCTATTTTGCTTATCTTCCTGCTCTCT
TGCTGCCTTAGGGGGTAGTAAACTGAAACATAAAGTAAACATGCATACAAATAAAAAACA
TAAACAAAAATAAGCAACCTGATGGTAATAGGTGAAAGTGGTAACCTGTTTAACTTTG
AATTCTTGCCCGGCGCGGTGGGCTCACGCCCTGTAATCCCAGCA

Sequence 1830

CGCGTCCGGTAAACCAGCCGGAGCGGCGCGGNAGCGGCAGGACCGCCGTGGCGCCTAGAG
TAGCAGACCCGGGGGAGCGCGGGGCGACGCTGGCTGCAGGGACCCGGTGACAGCGTGAG
AGGTTTTGACAAGCTTGCATCATGCGTGAGTATAAGCTAGTCGTTCTTGGCTCAGGAGGC
GTCTGGAAGNCTGCTTTGACTGTACCAATTTTGTCAAGGAATTTTGTAGAAAAATAC
NGATCCTACCGATAGGAAGATTCTTATAGAAAGCAAAGTTTAAAAGTAAGATGCACAACCA
GTGTATGCTTTGAAAAATCTTTGGATACCTGCCAGGNAACCGGGAGCCAATTTACANCCA
ATGGAGGGGGATTTATAACATGNAAAAAATGGGACAAAGGGATTTTGCATTTAGTTTAA
TTNCAATCACCAGACACAAGTTCCACCAATTTTAAAACGAATTTTACCAAAGAACCCTG
GAGGAGNAACCAAGAANTTCTTTNNGAAGTTTAAAAGGAACCACCTTGAATTGGAATG
GTTTCCCAAATG

Sequence 1831

CCAATTATAGACTATATAGGGGGAAGAGCACTGGATTTGGAGTCAAGAAACCTGGACACT
TGGCTCCACACTTCCTTAGCTGGGTAACCTTTGGGCAAACCGCTTGGTCTCTCAAGCCTAA
GGTTCTTCAGCTATAAAATGGGAATAATACTTCACTAACTACCTCACAGAGTTGTGGTAA
GAATATAATCAGATAACTGGATAAAAACACTATATAAACTGGAAAGCGCCGTACAAATGT
GAGAGATCAGTTTTATTATCAAATCACTGTTTTCCACTGCCTCTTGAATCGGCTTTATTC
TAACCAACCATTACATCTTTCTCATCTTTGGAGTATGGGTAATTGAGGCTTGGGTGTGT
CATCAGGGACTGGGAAGTTATTTAGCTCCCATGTAAAAGGTGGGAGAGGTGGTTTGTGG
GNGCAG

Sequence 1832

GNGTCGACNCGCGTCCGCTATTTACTACCTCCTTATGAGGAAGTGGTGAACCGACCTCC
AACTCCTCCCCCACCATACAGTGCCTTCCAGCTACAGCAGCAGCAGCTGCTGCCTCCACA
GTGTGGCCCTGCAGGTGGCAGTCCCCCGGGCATCGATCCCACCAGGGGATCCCAGGGGGC
ACAGAGCAGCCCCCTTGTCTGAGCCCAGCAGAAGCAGCACAAGACCCCCAAGCATCGCTGA
CCCTGATCCCTCTGACCTACCAAGTTGACCGAGCAGCCACCAAAGCCCCAGGGATGGAGCC
CAGTGGCTCTGTGGCTGGCCTGGGGGAGCTGGACCCGGGGGCGCTTCTGGACAAAGATGC
AGAAATGTAGGGAGGAGCTGCT

Sequence 1833

GCCNCGCGTCCGTGAAACGCAAAAGAAGGAGCTCGGAATATAAGAACGTCAGAACGAGTG
ACACTAATAGTGGAATAACACTAGATTTGTTGTAGACCCATCCATTTTACTGCACAGCCA
AATACAATGTTGGGCAGGATGTTTGGATCTGGCCGAGAACATAACTTTACACGACCCAAT
GAGAAAGGAGAGTATGAGGTGGCAGAGGGAATTGGTTCCACTGTGTTTCGAGCGATTCTG
GATTACTATAAAACAGGAATAATCCGTTGTCCTGATGGCATATCTATTCTGAAGTGA
GAAGCATGTGACTATCTTTGTATCTCTTTTGAATATAGCACTATTAAATGTAGAGATCTC
AGTGCCCTAATGCATGAGTTATCAAATGATGGTGCTCGTAGACAATTTGAATTTTATCTG
GAAGAAATGATCCTCCCTCTCATGGTAGCTAGTGCCAGAGTGGGGAACGG

Sequence 1834

CCNCGCGTCCGCTTTAACCACCATAAGAAATCAGAAAACGCAAGATAAAGTTCAGCACAC
AGTATGTATGGATTGCAGTAGCTACAGTACATACTGTTATCGCTGTGATGATTTTGTGGT
TAATGACACCAAGCTGGGACTGGTACAGAAAGTCAGAGAACACTTACAGAACTTGGAAAA
CTCAGCTTTCACAGCTGACAGGCATAAGAAAAGAAAACCTTTTGGAAAACCTCAACACTAAA
CAGCAAGTTATTTAAAGTAAATGGAAGCACCAGTCCATTTGTGCCACAGGCCCTTCGGAA
TTTGGGGAACACATGTTTCATGAATGCCATCCTTCAGTCACTCAGTAACATTGAGCAGTT
TTGGCTGTTATTTCAAAGAACTGCCCCGCCGTGGAGTTAAGGAATGGGAAAACAGCAGGA
AGGCGGACATACCACACCAGGAGCCAAGGGGATAACAATGTGTCTTTGGTAGAAAG

Sequence 1835

TABLE 1
304/467

TTACTGGGCACCCANCTCCATGTGCANGACTTTTCCCAACACAGCCTTGGCCAGTCAGAT
GGTGTGNCAGGGCCNNAGGTTTNCGTANCCTCTTGGGTGATAGAAAGGGGCCAGGCCCT
GGGCTGGGGCTCATAANGGACTCAAANGAGGCACCTTGCCC
Sequence 1836
TCGCCCCGGGGGCCATGGCAGCAGCGGCTACTGCAGCCGAGGGGGTCCCCAGTCGGGGGGCC
TCCCGGGGAAGTCATTCTGAATGTGGGAGGCAAGAGATTACGTACCTCTCGCCAGAC
TCTACCTGGATCCAGACTCCTTCTTCTCCAGTCTTCTGAGCGGACGCATCTCGACGCT
GAAAGATGAGACCGGAGCAATCTTCATCGACAGGGACCCTACAGTCTTCGCCCCCATCCT
CAACTTCCTGCGCACCAAAGAGTTGGATCCCAGGGGTGTCCACGGTTCCAGCCTCCTCCA
TGAAGCCCAGTTCTATGGGCTCACTCCTCTGGTTCTGTCGCTGCAGCTTCGAGAGGAGTT
GGATCGATCTTCTGTGGAACGTCCTCTTCAATGGTTACCTGCCGCCACAGTGTTCCC
AGTGAAGCGGCGGAACCGGCACAGCCTAGTGGGGCCTCAGCAGCTAGGAGGACGGNCAGC
CCCTGTCCGACGGAGCAACACGATGCCCCC
Sequence 1837
CGCGTCCGTTCTAGATCGCGAGCGGCCGCCCTTTTTTTTTTTTTATCTTTCTGTTTTTC
CACTAAAAGCTCCGTTTTTCCATCTTCCATTACTCTCCCTTCTCTGTGNACACTCCTGA
AGACAGGCATCCTCATAAGGTGTTCTGAATTAACCTTAGGGNGTTCTCCAGGTACTTTGC
ATCTTTTTATATTTCTTGTAATTGNTAATTTCTAAGCTCCATGATTAAGAGAATTCAC
CACTAAAAAAAAAAAAAAGG
Sequence 1838
CGCGTCCGGGCTGGCGAGCGCCGNCGCCGGCGGAGACCGACNCTNGGCCAGAGCCNGCCC
GCGGCGCCCGGGCCTGGCCGGCTGCTTCCCGCCTCAGCNNGGCGCCCCNGCCTCCGTGCG
CCGCAGACTTTGCTTAGGCGGGCNGAAGCTGAACAAGAGGTCCCTCGGCCCTGCACGGTC
CGGCCGCGGTCCGGAGCCGANGCGCATGAGATCCCCAGGAAGCCATCACACTCCTTCCC
ACTGTGGTTTNGGGAGCATGAAGGCGTTG
Sequence 1839
GCCCCGCGTCCGTTTTATTTGCACTTTTATGGGTGACAGTTTTTACGCATAACCTTTGA
TAAATACACTCAAGTGACTTGGACTTAGATGCTTATCCTTACGTCCTTGGTACCTTTTT
TGTATTAACAAACACTGCAATTTATAGATTACATTTGTAGGAAGTTATGCTTTTTTCTGG
TTTTTGTTTTACTTTCAACCTAGGTTATAAGACTGTTATTCTATAGCTCCAACCTAAGGT
GCCTTTTTAATTCCTACAGTTTTATGGGTGTTATCAGTGCTGGAGAATCATGTAGTTAA
TCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCAGCCTACATTCACCTTCTAAA
GTCTATGTAATGGTGGTCATTTTTTCCCTTTTAGAATACATTAATGTTGATTGGGGA
GGAAACTTATTCTGAATATTAACGGGTGGTGAAAAGGGGACAGTTTTTACCCTTAAAGT
GCAAAAGTGGAACATACAAAATAAGACTAAATTTTTNAGAGGTAACCTCAAGTAATTTT
Sequence 1840
GTCCGGCCAGCTGATGCCGGGAGCTAACTACCGCGCCGGGGCCGGGGCCGGGGCCGGGGC
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CGTGGCCCGCGACCTATTGAGGGGCACATCTAACATGTCATTTGAGGAGCTGTTGGAATT
GCAGAGCCAAGTGGGGACTAANACNTACAAACAATTGGTAGCTGGAAATAGTCCTAAGAA
ACAAGCTTCTAGACCACCTATCCAAAATGCATGTGTTGCANATAAGCACAGGCCTCTGGA
AATGTCANNAAGATCCGAGTNCCATTTTTACGTCAGGTTGTTCCATTAGTAAAAAGGT
AGC
Sequence 1841
GCACCCGCTGNGAGAGGCGGTAGCGGCGGCGGCGGCGGTGGTATCGGCGGCAGCTGTGAG
GGGGTCCGGGAAGATGGTGCTGATCAAGGAATNCCGGGTGGTTTTGCCATGTTCTGTTT
AGGAGTATCAGGTAGGGCNAGCTTTACTCTGTTTGAAGAAGCTTTGTAATGAATTGAGA
CTGGGTGGGTGGAGAAGGAATTGAAGNTCTTAAAGAATGAACCTTATGAGAAGGATGGAG
AAAAGGGACAGTTTTACGCACAAAATCTACCTAAAGAGCAAAGTTGCCTGCATTCTGT
GAGGATGATTGCTCCCGAGGGCTCCCTTGGTGTTTCATGAGAAAAGCCCTGNAATGCCG
TACCCCTACTGTAGNAACAATTNTNAACCGAAATGGAATATATTGAAANGAATGATTTTC

TABLE 1

305/467

CTTCAATTNAAAANTCCGAAAACAATNGGCANCCAAAACCCATNACTTTGGGGAACCATN
TAGGAAAAANNGTACCNATNGGGTTTTTAGGATTCCCAAACCACNATTGGGAAAAAAC
CTTG

Sequence 1842

CCCGCGTCCGGCGGAGAAGACTCAAAAGAGTGTGAAGATTGCTCCTGGAGCAGTTGTATG
TGTAGAAAGTAAAATCAGAGGAGATGTAACATATCGGACCTCGGACAGTGATCCACCCTAA
AGCAAGAATTATTGCGGAAGCCGGGCCAATAGTGATTGGCGAAGGGAACCTAATAGAAGA
ACAGGCCCTTATCATAAATTGCTTACCCAGATAATATCACTCCTGACACTTGAAGATCCA
GTAACCAANAACCTATGATTGATTGGCACCAATAAATGTTGTTTGAAGTTGGGCTGGT
TTATTCCCAAAGGCCATTGAAAGATGGGGGAGGATAAAATAAATGGTCATTTGAAATCA
AAAAGTCAATTATTGTTAGGCCAGAAAATGGTAAATATTTGGACCAAGTTGGCTTGCATT
CATTTGGGNGGGCTTTGGTTGCAACCTTAAANTACATTTTGTAAAGTTCATCCCCTGGAGA
ATACCNGGTGGAATCCTTAAT

Sequence 1843

CGACCNCGCGTCCGGGGGATCTGTGCCTGGCATGGGGACGAGTTCTGGCCTCCTTAGGGT
ACGGGGAGAGCTTGGACTTTGGTCTGACGTGGTGGACGACACACCTTCGAAGAGTGGAC
GTTACCTCAGTTGTCTGTTGTTAGAGTTTAAATCGATCACTCCTCTGTTTTGTTGTGTTCT
TTCCAGAAATAACTTTACCAAAGGAAAGCTATTTTGCGAACATCTTCTCCAGCGGAGA
TGGCCAATGTGCTTTGTAACAGAGCCAGACTGGTTTCTATCTCCAGGATTTTGCTCTT
TAGTTAAAAGGGTTGTCAATCCCAAAGCCTTTTCGACTGCAGGATCATCAGGTTCCGATG
AGTCTCATGTGGCTGCTGCACCTCCAGATATATGCTCTCGAACAGTGTGGCCTGATGAAA
CTATGGGACCCCTTTGGAC

Sequence 1844

GGGACAGAGCCCCGATCCGCCAGCACACCTGAGGATTNNGAAACCGCCCCAGCGATGG
AAGAGGGNCAGGAGCTGGAGAGGAAAGCAATAGANGAACTGCTTAAGGAGGCAAAACGTG
GGAAAACTAGAGCTGAAACAATGGGACCCATGGGTTGCTTATTACAGGGACAAGATACAA
ACTAAAATCAGCCAAAATAAGACACAAAGATTAAAGCCA

Sequence 1845

CGTNCGGGACCCGNCAACATGGGCCGCGTTGCGACCAAAAACCCGTGAAGAAGGCGGCCCCG
GGTCATCATAGAAAAGTACTACACGCGCCTGGGCAACGACTTNCACACGAACAAGCGCGT
GTGCGAGGAGATCGCCATTATCCCAGCAAAAAGCTCCNCAACAAGATAGCAGGTTTATG
TCACGCATCTTGATGAAGCGAATTTAGAGAAGGCCANTTAAGGAGGTATCTCCATCA
AAGCTGCAGGNAGGAGTGANGAGAGNAAAGGAGTAGACAATTATGTTTCCTGAAGGTCTC
AGCCTTGGGATCAAGNGAGAATTATTNGAAAGNTAGATCCCTGNACAACTAAAGGAAATG
CTTGAAGNCTTTTGGACCTTCGNACAGTTCTTGTCCAACCCCTTCAAGGTTCACTTCAG
GCCTACAAGTTGGGGATTGAAATTTTCAAAAACGCCNTCGGGGGAACCCCTGTTTTGAAA
ATTTTTTTCTTGNTAGNTGCCTTGATTAATTTTT

Sequence 1846

GTCGACCCCGCGTCCGCAGCCTGGCCTGTGAGACCCCTCGTGGACAACAACCTGCGGGTCA
CCAAGTGGAAACCGCAAGCTGGGCTGCAAGTGCCAGTACAAGCACATTGTGGACTGGTGTG
GCTGCTCCCCCAACGACTTCAAGCCACAGGACTTCCTCCGGCTGCAGCAAGTCTCCAGAC
CCACCTTCTTCGCCCGGAAGTTCGAGTCGACTGTGAACCAGGAGGTGCTGGAAATCCTGG
ACTTCCACCTGTATGGCAGCTACCCCCCGGCACGCCAGCCCTCAAGGCCTACTGGGAGA
ACACCTACGACGCGGCTGATGGCCCCAGTGGGCTCAGTGATGTCATGCTCACTGCTTACA
CAGCCTTCGCCCGCCTCAAGCCTGCACCATGCCGCCACTGCTGCACCCCCAATGGGCACC
CCACTCTGCAGGTTTGAGCCCAGGGGCTTGCCGTCCAAGCGTGCACCTGTATTTCTATG
ACGACCATTTT

Sequence 1847

TCCGCAAGAGTTATGCTTAAGACCAGCCAGCCTTGATAGTGGCAGAACATCCACTAGCAA
TAGCAATAATAATGCTTCACTACATGAAGTCAAAGCAGGTGCAGTTAATAACCAAAGCAG
GCCACAAAGCCACAGCAGTGGAGAAATTTAGCCTGCTTCATGACCATGAGGCTTGGTCCAG

TABLE 1

306/467

CAGTGGTAGCAGTCCAATCCAGTACTTGAAAAGACAGACCAGATCAAGCCCAGTGCTCCA
GCACAAAATATCTGAAACACTGGAGAGTCGACATCACAAGATCAAACTGGTTCCCCTGG
AAGTGAAAGTTGTTACTCTACAACAGTTTTTGAAGAAAGCAATAAGCTTACCTCAAGTA
CAGATAAAGTCCTCAAGTCAAGAGAATCTTTAGATGAAGTAATGAAAAGTTTGGCTGNC
TCTTCTGACTTTTTGGGAAAAG

Sequence 1848

GCGTCCGCGCGGGGCCGCTCTAGCCGGTGAGGCCGGCGGGCTCTCTGTGGCTGCGGGCTGG
GAAACCGCGCGGAGGAGGTGCCCCGGCCGGGGACCAGCCCTGGTCCAGCGCCTCCCTCTCT
CAGCATGGACGAGGAGAGCCTGGAGTCGGCCTTGACAGCTACCGTGCGCAGCTGCAGCA
GGTGGAGCTGGCCTTGGGCGCCGGCCTGGATTCTGTGAGCAGGCTGACCTGCGCCAGCT
GCAGGGGGACCTGAAGGAGCTCATCGAGCTCACCGAGGCCAGCCTGGTGTCTGTCAAGAA
GAGCAGGTTGTTGGCCGCGCTGGACGAAGAGCGCCCCGGGCCCGCCAGGAAGATGCTGA

Sequence 1849

AGTCACCACGCGTCCGGGTTGCACTCTTCCTATAGCCCAGAGGGCGAGAGGGCCTGTGGC
CTGGGGGAAGGAGGACGAGGTTCTGCCTGGATCCCAGCAGTAGGACGCTGTGCCATTTGG
GAACAAAGGAATAGTCTGCCTGGAATCCCTGCAGATCTTGGGGCCGAGGCCAGTCCAAC
CCTTGAGCAGGAAGAAACGCAAAGTTGTCAAGAACCAAGTCGAGCTGCCTCAGAGCCGG
CCCGCAGTAGCTGCAGACTCCGCCCCGCGACGTGTGCGCGCTTCTCTGGGCCAGAGCGAGC
CTGTTTTGTGCTCGGGTTAAGAGATTTGTCCCAGCTATACCATGGGCCCCGCACTCGGNAA
AGCTGGCTTGCCTGGCCGCTGGTGTGGTTATCGGGGCTGGTGCCTGCTACTGTGTATACA
GACTGCTTGGGGAAG

Sequence 1850

TCGACCNCGCGTCCGCTCAGGAACCTTNGAGAAGATNAGNNCCCCACTTAGATTNTTAAG
GAGTAAAAAGGGCTGAGTTATGCCTTTAAGNGCTGTCAAGAATCACTTGGGTTTGGGAC
ATTTGCTGGTGTAATGCTAGATGCCACAGCANCATAATATTGNNCTTTGTCAAAGGTNG
GTAAATNCTNTGNTTNTCANCANCCCTTTCCCCA

Sequence 1851

AGTCACCACGCGTCCGCGGCTGGTGGTGGGCTCGGGCCGCTCGCCTTGCCCGTCTTCGCT
TCCGGAGGTTCGCTACTGCCGCCTCAGCGGCCCGGAGCGGGGGCGCCCGGGGGTCCCTCG
CCCCCGGCCACGGTCCCCGCGCCGGGGCTTCGCCGCCCCAGTGTCAGAGCTGGATCGTG
CGGACGCCTGGCTCCTCCGAAAAGCGCACGAGACAGCCTTCCTCTCCTGGTTCGCAATG
GCCTCCTGGCATCGGGCATCGGGGTCTCCTTCATGCAGAGTGACATGGGTGCGGAAG
CAGCATATGACCATCCCCGACCTTGGCCTGTTGCTACCCCTGCCTCTNCCGACGGCTTC
TTNCTGCTGGGCGGCCTGTGCGTGGTGTGGGGCAAGCGCCTTGTAACCCGTGGGCCTGGCG
GCGCTTNGAGGACCCATGCAGCTGACCTGGGGGGCGGCCTGGG

Sequence 1852

GCGTCCGCTCGCTGCAGCCCCGCCTGGGGCACGGCACCCCTCGAGCGCCAGCCCCGCGCCC
CACCCGGGAGCAGCGAGCCACCGGCGCGCTCCCCAGGAGCCCCTGCAGGCGCCGGCCCTG
GTCCAGCGCCTCCCTCTCTCAGCATGGACGAGGAGAGCCTGGAGTCGGCCTTGACAGCT
ACCGTGCGCAGCTGCAGCAGGTGGAGCTGCCTTGGGCGCCGGCCTGGATTCTGTGAGCA
GGCTGACCTGCGCCAGCTGCAGGGGGACCTGAAGGAGCTCATCGAGCTCACCGAGGCCAG
CCTGGTGTCTGTCAAGGAAGAGCAGGTTGTTGGCCGCGCTGGACGAAGAGCGCCCGGGCCG
CCAGGAAGATGCTGAGTACCAGGCTTTCCGGGAGGCCATCACTGAGGCGGTGGAGGCACC
AGCAGCGGCCCGTG

Sequence 1853

GCGCCCCGCGTCCGGAAATTGACCCCTAGAGAAAATCCCATTAACCTTGTTAAATTAGTGG
AATTAACAACAAATAAAGCATGTTTGAGACCTGGCAAAAATTCCTCTGGTAGTATTTATA
AATAGAGCTGCATGCCTCTAGTATGAAAACCGTATCAGTTGCAAGTGCCACTTCTACAAG
TACTCAGTTTACTCTTTGTATCAGTAACTTTAAAGGTTGGATGATCCTTGCTGGTTAAA
GCTAAATCTCAACCTAGCAACTAAATGAAAATATTTAGAATCATCAGAATCTGAACAGAC
TAAAATTATCAGCGATAAGCAGAATCAAGCAGGGTATAAGTTTTATCTCAATTATTTGAA

TABLE 1
307/467

ATTGACTGGAGTTCCTTAAAGTGTAAGCTGAAATTTGCTAACCATGTTTTGATGAAC
CCACAGTGCAGCATTGGGTTGGGGTTTTAGATTTGAATGACTCTCTGCTATAATTATCAT
GACTTTGAAA

Sequence 1854

TGTCGACCCCGCGTCCGAACCTTTGGGAGACTCCAAGACAGCATGCTCCGAGGTCCGGCGG
GGGTCTGGGTGGCCATGGAGGAGCCCCCTGTGCGAGAAGAGGAAGAGGAGGAGGGAGAGG
AGGACNAGGAGAGGGACGAGGTTGGGCCCGAGGGGGCGCTGGGCAAGAGCCCCCTCCAGC
TGACCGCCGAGGACGTGTATGACATCTCCTACCTGTTGGGCCGNGAGCTTATGGCCCTGG
GCAGCGACCCCGGGTGACGCAGCTGCAGTTCAAAGTCGTCCGCGTCTGGAGATGCTGG
AGGCGCTGGTGAATGAGGGCAGCCTGGCGCTGGAGGAGCTGAAGATGGATAGGGACCACC
TNANGAAGGAGGTGGAGGGCTGCGGAGACAGAGCCCTCCGGCCAGCGGGGAGGTTGAAC
CTGGGCCCAAACAAAATGGTGGTT

Sequence 1855

TGTCTGCCGAACAACTGAAACTATGCAGGTTATATCATTCCACCAGCACCACCAAGACC
TGATTTTTGATGCTTCAAGGGGAGAAAACTACATGAAGCTTGGNGAAGNGAGAAGGGTC
AAGTGACCGAANNGCAAGNAATTTACAAANAGAATGAAACNAGGCAACTGGAAAGCTCG
AAATANTTTTGGCAATTATTTAGAGGANAGCACCAGATTTGCCGTATTGCATNGGAANT
TGNTACCCNGTAGTTCNTGTTGGANATGTCAACANTCCCTANTNTTTGNACGAAACT
AAGGAATTNTAGAAATTTTGAATNGTTCCTTTACTTGGGGGAAAATTATTNNAATTCC
AAAGGAATCTTTNAGAGNTTGNNTNGCCGTAANGGCAAGAGAGAGNCNATNTNGAAACT
NAGGAAGCGGAAACCTTTTGNAAANAACTTTTCTTTTTTA

Sequence 1856

GAGTCGACCNCGCGTCCGGCGGCGAGCGGGACTGGCCATTGGAGTGCTCCGCTGCGGAGG
GAGGGGACCCCGACTCGAGTAAGTTTGGGAGAGCACTACGCAGTCAGTCGGGGGCGAGCAG
CAAGATGCGAAGCGAGCCGTACAGATCCCGGGCTCTCGAACGCAACTTCGCCCTGCTTG
AGCGAGGCTGCGGTTTCCGAGGCCCTCTCCAGCCAAGGAAAAGCTACACAAAAAGCCTGG
ATCACTCATNGAACCACCCCTGAAGCCAGTGAAGGCTCTCTCGCCTCGCCTCTAGCGTT
CGTNTTGGAGTAGCGCCACCCCGGCTTCTGGGGACACAGTTTGGCACCATGGGGCCCA
CCAGCGNCCCGCTGGGCAAGGCCACCGCAGGCTCGGTCTNTGACTACGNCAACTATGAT
ATTCATTGCTCCGGCATTACAACCTACACGGGGAAAGCTGAATATCAG

Sequence 1857

CGTACGCCGAGCGCCGCTCCGGCTGCACCGCGCTCGCTCCGAGTTTCAGGCTCGTGCTAA
GCTAGCGCCGTCGTCTCCCTTCAGTCGCCATCATGATTATCTACCGGGACCTCATCA
GCCACGATGAGATGTTCTCCGACATCTACAAGATCCGGGAGATCGCGGACGGGTTGTGCC
TGGAGGTGGAGGGGAAGATGGTCAGTAGGACAGAAAGGTAACATTGATTGACTCGCTTCA
ATTGGGNGGGAAATGCCTCCGCTGAAAGGCCCCCGAGGGGCGAAAGGGTACCCGAAAGNCA
CCANGTAATCACTTGGGTGTTCCGAATATTGGTTNATTGAAANCCATTCAACCCTTGONA
GGGAAAAACAAAGGTTTTTCNACAAAAAAGAAAAGCCCTTACAANGGAAAAGGTTAC
CATTCANANAAGAATTTAACATTTGAAAAATTTCAAATCTAAATAGGGGGGAAAAACCT
TTTGAAAGGAAACCAGGANGTACCCACGGANAAAGGAAGGTAAAAA

Sequence 1858

GNGTGACCCCGCGTCCGGTGGAGGGTCAGGAGCTGCCCCGGATCCTCTCCATGTAGTTG
CGAAGCTCCTCAGGGTCCTTCAGCCCCATGTCCTCACACACCCAGCGGATGTCCTCCTCG
CCTGCCACAAGGATGGACTGCACAGCAGGGGCCCTACAGGCTCCTCAGGTGACTGGGCT
GGAGGGGCTGGCGCAAATGTCACAACTCTACTCGCTTCCGCCGCCGCCAGCCTCCTTT
CGGGCCAGGGTGCTTGAGGAGCTGGTGGTGCCCCAGGAGGGCCAGGGGGCAGGTAGGG
GCCTCCCCTCCTCCCCACTCTCACAGGGGAGCTCCCCTCCCCCTTGGGCGGGGCCAGGG
GACTGCCGGTCCAGCTGGCGGCTCAGTTCCTCCTGGTCAGTGCCAGCCAGACCCAGTTG
TGGGGCTGGGGGAGGTTGGGG

Sequence 1859

GCGCCCCGCGTCCGGCGGGCGGCGGGCGGCGGCGAGCGGCAGCCAGAGGACTCCAGCGGCTG

TABLE 1
308/467

GAGCAGAAAGTGTTAGCCGGCCAGAGCTCCCAGACCCCTACCCACAGCCAGGCGGGACGCG
CACAGTCCCTCCACGCGGAAAGAAGTACCTTCGCCGGTCACCGGCTCCTGCAGGGTTGCA
NATATATACAGAGCTTCATAATCAGCCCAAGACCACATAGAGCAAACATGAATGATATTT
CCCAAAAGGCTGAGATTAAGAAATGCTTGCTTCTGATGATGAGGANGATGTATCTTCTA
AAGTNGAAAAGGCTTATGTTCCAAAA

Sequence 1860

CGACCCCGCGTCCGACCCACTGAAGACGTCTGCGTGAGAATAGAGACCACCGAGGCCGAC
TCGCGGGCCGTTGCACCCACCGCCAAGGACAAAAGGAGCCCAGCGCTACTAGCTGCACCC
GATTCCTCCCANTGCTTANCATGAAGAAGGCCGAAATGGGACGATTCACTATTTCCCGG
ATGAAGACAGCAGCAGCNTACAGTTTCCAACAGCGACTTCACTACTTCTACCCCTACC
AAGNCAAGCTTGCTCTGAAAAGCCANTTATGCCANAATGTAGGATCCTGAAAACCAAGA
AACTTTTTTACTTGAAATT

Sequence 1861

GCGTACGGCCTGTTGGGCTGTCTGGGGGGTGGCCATTTAGGGATCGTGGGGACGGGGTCC
ACCCCANNAAGAAAGAACAGGCCCGTCCACAGGCCCGGCTCTGGGCCACAGTGCCCGG
AAGCAGGTGTGTCCAGAGTCANGCTTGAATGGCTCTCCCCACAACCACCCAGCNAGGCGC
TGGTGCNTCCTTCTGCCTCATGGGACCAGTCCAGCTTNCAGCCGCTCTGGGCTCGAGGGT
NGGTACTGACCACTTTCCTTCTTGAGNTGGGAGCATTCTCTGGGGGAGNCTCTTCCAGT
GGGCACCTGCCTGGGACNCTTGCCACCGGTTTTCTTGTAATAATCAGGAATACCGGTGG
CTTTTAGTAAAAGGCAAGACCANAGNCGCCTTNCGTTGGGCAGGGGAAAAGCCAAGCGTG
CCGGNNGGNAAGGTCACTGAAAAAAGGTGGCTTGCCCTAAGGGGGAAGTTTGGGAAAATA
GTCCCCCTGTTCCAAGAANTGCCTTTGAATTTTTAAAAACATTTTTGGCT

Sequence 1862

CAATNTACAACGCCATGTNCACCCANATGTTCCAGACTAAGCGCTGNTTTTGACTGGCCC
CCACCTTNAGCAACCTGCTCCTGCAGCCNACCACCAACCCTCATACCTCGGNCAGCCACA
GGCCTTGCGGTCAATGGGGATGTAGACAAGCCTTCAGAGCCAGCCTCTGAGGAGGGCTCT
GAGTNGGAGGGGAGTGAGTCCAGTGGACGCTCCTGTNGAATGAGCGCAGCATCCANGAG
AAGCTTNAGGTCTGATGGCCNAAGGNNTGCTNCCTTGCTGTGAAAGTCTTNGTGGACTG
GCTTCNGACCAAC

Sequence 1863

NGGAGTCGACCCACGCGTCCGGCCGCCAGAACACAGGTGTCGTGAAACTACCCCTAAAA
GCCAAAATGGGAAAGGAAAAGACTCATATCAACATTGTCGTATTGGACACGTAGATTCT
GGGCAAGTCCACCACTACTGGCCATCTGATCTATAAATGCGGTGGCATCCGACAAAAGAA
CCATTGAAAAATTTGAGAAGGAGGCTGCTGANATGGGAAAGGGCTCCTTCAAGNTATGCC
TGGGTCTTGGATAAACTTGAAAGCNTGAGCCGTGAAACCGTTGGGTATCACCATCTGGAT
ATTCTTCCTTTGTGGGGAAATTTTGGAGNACCAGGCAAGTTACCTATTGGTGGACTTATT
CATTTGGATGGCCNCCAAGGGACCACCAGGAGGACCTTTTATCAAAAAAACANTGATTA
CAGGNGGACATCCTNNAGGCCTGGACTGGTGGCTGGTCCTGNATTGGTTGCTGGCTGGGT
GGTTTGGATGGAATTTTGAAGGCCTGGGNTATNCTTCCCAAAAGAAAT

Sequence 1864

GCGTCCGATGGCGTGNTGTCTCACAGAAAAGTTCTCCGCTCCCAGACATGGGTCCCTCGGC
TTCTGCTCGGAAGCGCAGCAGCAGGCATCGTGGGAAGGTGAAGAGCTTCCCTAAGGAT
GACCCATCCAAGCCGNTNACCTCACAAGCCTTCTGGGATACAAGGCTGGCATGACTCA
CATCGTGCGGGAAGTCGACAGGCCGGGATCCAAGGTGAACAAGAAGGAGGTGGTGGAGGC
CTGTGACCATTTGTAAGAGACACCACCCATGGTTGGGTGTGNGGCAATTGGTGGGCCTA
CGTTGGGAAAACCCCTCGAGGCNCTCCGGTACCTTCAAGACTTGTCTTTTGTGGAGCA
CAATCAGTTGAATGAAATGGCAAGAAGGGCGGTTTNTTATTAAGTAATTTGGCCATTAA
AAATTCTAANGAAAGGAAAGGGCCTTACCAAAGTTACCTGCAAGGAAAATGG

Sequence 1865

CCGGCCGGGCTGGGTCCCAGCACNTGACCCAGCTGCACTGCTGTACAGGGCTGCNCGTC
ACCCGAAGTCAGAAACGTGGCATCTCATCGGAAGAGGAGGAAGGAGAGGTAGACAGTGAA

TABLE 1
309/467

GTAGAGCTGACATCNAGCCAGAGGTTGGCCTCAGAGCCTGAACATGCGCCAGTCACTATC
TACCTTCAGCTCAGNAGAATCCATCAGATGGGGAGGAAGGCACAGCTAGTGAACCCTTCC
CCCAGTGGCCACACCTGGAAGTTGGCTAGCACCAACACNTGATGAGTCCGGGCNCAGNAT
GAAGCNGNGTTCTGATGAACATGTTGACTCCCAAGGGGCTCAAGAAAATCCCCACNTGGG
ACNCCACTCTCCTTCAGGAGGGTCATACCCTGGGCCCTGGAACCCAGCTCCCTGGCCCA
Sequence 1866
TTGCGCCCCCGCCGGTGAGCGCGGGGAGCGCCGCAAGCCCAACGCCGGGGGAGCCCCGN
TCCGGTGCGCCGCCGGCCGAGGCTCGCCGGTGCGAGAAAAGGAGAAGAAGGACAAGGA
GCGGGAAAACGAGAAGGAGAAGAGTGCCCTAGCCCGGAGCGCAGCCTCAAGAAGCGCCA
GTCGCTGCCCCGCTCCCCACGTGCCCGCCTCTCTGCCAGCACCGCCTCTGAGCTCAGCCC
CAAATCCAAGGCCAGGCCATCCTCTCCCTCCACATCCTGGCACAGGCCTGCCTCCCCCTG
CCCCAGCCCAGGGCCAGGCCACACTCTGCCTCCAAAGCCACCGTCCCCCGAGGCACCA
TGCATCCCCCAAGGGGCGGGTTCGGAGGAAGGAGGAGGCAAAGGAGAGCCCCAGCGCCG
AGGGCCCGAGGACAAGAGCCAGAGCAAGCGCAGGGCCAGTAACGAGAAGGAGTCAGCAGG
CCCAGCCTTACCGGCACCTTTGGCGGNGCCTTGGCCAACCCAAAGCCCGGCCAAAAGGAG
CAAGCCCCCGNGGAGACCCCTTACAGACCTGGTTTCTTTGACTTAACCCCAAGCCCTTGT
TCCCCGGTGACCCCTAGCAAANCAATGGGCCGNGNACCACAAGANCGAGAAGAAGCCCTT
GGNTNTTGGCTTGAAAGCGGCGCCAGGNCCTGGGAACAACCGGAAGCCCCANGAGCAAGA
ACCGANGCTTTANGCAAAAAAGGACAAAGCCAATTGCAAAAGGACAACCTTGACCGGAAG
GCCCAGGC
Sequence 1867
CCCCGCGTCCGTTAAGAGTTGCATATTTTACTTTATTTTTATTAAATTAAGCTACAG
TCTGGCAGCGATTCCAGAACAGGGTAAGGAGGTTCTCACAGGGGTGAGAGAAGAGCGGA
GAAAGACAGACTGACGGAGACTGAGACACAGGAGAGAAAGGACAAGGTTAAGGGAGAACT
GTATCTGATGAACACACACAGCCGGCTCCATGGCGGGTGACGGGGAGCTCACATCAGCCC
AATTTCTCCTCCCCGGCACCCGAAGTTCAGCGGTGGAGCAGTATGTGGGGGCGGTTAGGA
ATCAAGAGACCCTCCCTTCCCCACCCTAGGTCCTTTCTCGGCTTGGTCGTGGAGCACAGC
ACATACCAGAAAAAGCCAAGGGCAATGGAGGGGCGAGGAAACCGGGAGTATATGTACAG
GGGAGGGGAGAACAGAGCCTTGAGGTCGGCCTCTGCCAGAAGGGAAGTGGCTCACACTT
GCATTTGNAACACTTGCCAGTGGGGGATGGGGGAAAGGAATTGCCCTTCTTTTGG
Sequence 1868
CCNCGCGTCCGCACACCCTTCTGTACTCAGTCCTCAGTTTGCCTGGTGAGAGAGCAGC
CTCCTCCCGTGTGCTCTGCCAGCTGGACCCAGACTGGCCATATTACAGTGAGACCAAAA
AGATGGAGGTGGGGAGGTAGCTCTGAGGTCTGGGAAACCATTCCAGCTCCTGCCAGTTTT
AACTTGTGTTTAAATTCCTGGCACAGTTGTCTGGAAATGCCTTTTTCTCTTGCCTGGGAA
CCACTAGAAGGGGATGTTGTCTGTGTTGGCCAGGGCCATGCAAATCAACATCTTGTTC
TGCCCTTCCCCCGTGTAGCTGAGGCTAGGTGTTGGCATTACCCAGTGCTTGTCTTCAGA
GAGCAAAAGCACTGCTCGTCATGTCTGAAATTTAGTGAGTGAGCTCACCCACTAGGCTGG
TGTTTCTGCCCCTGGCTGCACATTGGAAGCACCGGGGCACCTTGAGAACTACAGATGCC
TGGGTCCAGAGCATCTAAGGTGCTCTAGGCTGTGTCAGGACACAAGCCCTGGTTGAGG
ACCACTGCTATATTGTATGGCCTCTTTTAAAAAGTTAATTTTACTTGGAATGATTTC
AAGCTACAGAAAAGTTGCAAGAATAAAAACTGTACAAATGAGGCTTAAATATTCTTTGGC
CAAATCACCTATTAACATTTCTGTTCCAAAAA
Sequence 1869
GGGCAGCGCCTCCGACATGAAGGCTGAGCTGTGCAACTTATTAGCGACCTGGGCGAGCT
CAGCTTCGGCAACGACGTGCGCACCCCTGCAGGCCGACTTGCGGGTGACGCGCCTGCTGTC
AGGCGACAGCACGGGCAGCGAGAGCTCCATCGAGGGCGGGGGCCCTGACGCCACCTCCGC
CACCGCCGGGACTCGTCCCGCCAGGCCGACGGCGCCAGTGACAGACGAGCCCCACTCGGG
CTGAGCTCCTCCGCGCGTGCCTGGCGCTCCACCGTGGCTACCCATCCGTGGTCCCGACAA
CCTCCCTGTCCTTGGCCGCCCCAGGAAGGGGAAATGGGGCATTGGGGCCAGACCT
ACACTTGAGCCCAGGTCCAAGCGTTCCCCGACCGCTTCCCTACTNCCGGNCCCCGCTC

TABLE 1
310/467

CCGCCCCAAGAACTTTTGGCTTTTTTGC GCGTGGGGATGCGGGGAGATTTGAGANGGGNA
AACCCCCGCCAGGAAGGAAGAGAAGAGGCACCCCTTTGGGAATGCCGGTGAAGGGAAGGT
TGGCTGAAGTTCCTAAGTTTAAGGCCTAAGGTGCCTTGGNCAGGTTTCCTGTTTGTGGGG
GAAACTTGGGNCCTTGAGGAGGANGGGGTTAAATTTCTTCTTCCAACCCCTGGGAAGCGGG
CCTTGCCTTGGANNTGAAATTTAANTNAAAAAAAAAAAAA

Sequence 1870

TCTTCATCATGGGTGCCAGCATCCACCTGGTGGGTGACTCTGTCAACCACCGCTGCTCT
TCAGTGGCTACNAGCACCACTGTCTGTCCGTGAGAACCCCATCATCAAGAATCTCAAGC
CGGAGACGCTGATCGACTCCTTTGAGCTGCTCTACTATTATGATGAGTACCTGGGTCACT
GCATGTGGTACATCCCCTTCTTCTCATCCTCTTCATGTACTTCAGCGGCTGCTTTACTG
CCTCTAAAGCTGAGAGCTTGATTCCAGGGCCTGCCCTGCTCCTGGTGGCACCCAGTGGCC
TGTACTACTGGTACCTGGTCACCGAGGGCCAGATCTTCATCCTCTTCATCTTCACCTTCT
TCGCCATGCTGGCCCTCGTCCTGCACCAAGCGCAAGCGCCTCTTCCTGGACAGCAACG
GCCTCTTCTCTTCTCCTCCTTCGCACTGACCCTCTTGCTTGTGGCGCTCTGGGTGCGCT
GGCTGTGGAATGACCCTGTTCTCAAGAAGAAAGTACCCGGGTGTCATCTACGTCTGAGC
CCTG

Sequence 1871

CCGCGTCCGGTTTGTTGCTTATAGGTTTAATAAGTCTATTGAGGAAGACCTACTCCTGTG
TGAATCTTTGCAAAGTAATGCTACCGGTGAAGAAATATTCAACTGNATCAACAGTTTTAT
GCAGAAACATGAAATTGAATGGGAAAAATGTGTTGATGTTTGTAGTGATGCTTCTAGGGC
AGTGGATGGGAAAATTGCCGAAGCTGTCACCTTAATAAAATATGTGGCTCCCGAAAGCAC
CAGTAGTCACTGCCTATTATACAGACATGCACTGGCAGTTAAAATAATGCCTACATCTCT
AAAAATGTGCTAGACCAGGCAGTACAAATCATCAATTATATTAAGCTCGACCACATCA
ATCCAGACTATTAATAATTTTATGTGAGGAAATGGGTGCTCAGCACACAGCACTTCTTCT
AAATACAGAGGTGAGGTGGCTTTCTCGAGGTAAAGTTCTTGTAAAGACTTTTTGAACCTCG
TCGTGAACCTTTGGTTTTTCATGGATTCTGGCTTTTCGACTATCTTGATTGGTTAACAAA
TTCATCTTGGCTGCTAAGACTTGCATATCTTGCAGATATTTTTACTAAATTAAGTAA
GTTAATTTGTCAATGCCAAGGNAAAAATGTGACCCGTTTTACNAGTATTTGATAAAATGT
CGTCATTGGTAAGAAAATTGGAAT

Sequence 1872

TCGACCCACGCGTCCGCGGACGCGTGGGTGTGACTGGCACCCAATGCCATGCCCTTTATGG
TCACTTGGTAGTATAAAGGCATGGCATTGTTGTGACTGGCACCCAATGTTTGATTTTTT
TTTTAAACTATCCAATTAATAAAGGTCTGGGAGTGTTCTGTTTCCATTCTTTAATA
CTCACCTCCTCCAGACTTTCTACACCTGTTGCACCTCAGGCAGAGGATGTTCTGGACCT
CCCCCTCTTGGTCCCTACTAGAGACCTCTCAACAGATCTGTGGGCCAGTCATTGGGTTT
TATCAGTGCTTAATGTGAACCTAAGTTTTTACTTCCACAGAATACAAGCCACTACCTTCT
GACCTCCCCACCCCCACCAACCCCCATCTTTAATATGCTGTGGGGCATAGAACTCCGG
AATGACCAGCATGATATTTTCAGAGTCTTGTCCCCGGGGTATTAGCACCTCTTTTTGAAC
AGGGAATTGATTCAAGATTGGACATGGTCTCCTCTGATTATCAGGTAAGTGGGGCTGAGGG
CATTAAAAATAGTAAGCCTCCCTCTCGTCCCTGCCTCAAGAAATTGCCTCTTATTTATC
AACATCTTTTTCTC

Sequence 1873

CCNCGCGTCCGGTGTTCTCCTGAGAATTAGTGGTCAGACATTGCAGAGGGCATCAGAA
GCGGGTAGATGAAATAGCGAAAGGAAACAGGCTAGCAGACCAAAGAGCTAAGTCAGCAGT
AAGAAGGCCCAAGGTCCCAAAACACTTGAGGCCCTCTGATTGGGAGGGCTACATAAG
GGAAATAAAGCCTCAGTATTTCCCTACAGAGATAGAATGGGCCACCTCTCGAGGTATACT
TTTCAACCCTCAGGATGGTTACAATCAGAAAGATTGCAAAGTACGCTTGCCAGCCTCCAGC
CAATGGAAGATTCTTAAATCCTCCACTGAGCCTTTCACTTAGGAAAGCATAGACATCA
GTGCATCCAAAGATTGTTCTCAGGAGAAAATCTACTAAAAATGGTCAAATAGGTTGTTAA
TACTCGTGAAACCTCTTAAAAATAATCCCTTTAACAGATGACTTCTTCCCCACCACAAT
CAAAGGA

TABLE 1

311/467

Sequence 1874

ACGCGTCCGATGACCAGGCTGCCCCGCTCCTGGTTCTGCCAAGTTCTCCCTGGAGACT
GAAGTCGACCTCAGGAAGCCCCTAGAGAACCTGGGAATGACCGACATGTTGAGACAGTTT
CAGGCTGACTTCACGAGTCTTTCAGACCAAGAGCCTCTCCACGTGCGCGAGGCGCTGCAG
AAAGTGAAGATCGAGGTGAACGAGAGTGGCACGGTGGCCTCCTCATCCACAGCTGTCATA
GTCTCAGCCCGCATGGCCCCGAGGAGATCATCATGGACAGACCCTTCCTCTTTGTGGTC
CGGCACAACCCACAGGTGAGCCTGGAACCCATCACGTTCCACATCCTCCACCCATTCT
TTCTCTCAGGAACTAGTCCCGACAGATGCAGACATCCCTCTATCCCTGAGAGGGCTCTGG
GCAGGGAACCCATAACCCTACCCTGCTTCTGTCCCAAGAGGAGGC

Sequence 1875

AGTCGACCCACGCGTCCGCCCACGCGTCCGCTTCTTCTGGGCACTGACTGCCCTTCTGG
TCGCTTCAGCTGCTGCCTTCCAGGGTCTTCTGCTGCTGTTGCCGCCACCACCATCTGTAC
CCACAGGGGAGTTAGGATCAGGCCTCCAGGTGGGAGCCCCAGGAGCAGAGGAAGAGGTGG
AAGAGTCCTCACCCTGCAAGAGCCACCAAGCCAGGCAGCAGGCACCACCCCTGGTCCAG
ACCCTAAGGCCTATCAGCTTCTATCAGCCCGCAGTGCCTGCCTGCTGGGCCTGTTGGCCG
CCACCAACGCGCTGACCAATGGCGTGTGCTGCTGCCGTGCAGAGCTTTTCTGCTTACCCT
ACGGGCGTCTGGCCTACCACCTGGCTGTGGTGTGCTGGGCAGTGTGCCAATCCCCTGGCCT
GCTTCTTGCCATGGGTGTGCTGTGCAGGTACACAAGGACCCCCAGCCCCTGTGCGGGTG
GAACTCA

Sequence 1876

TCGACCNCGCGTCCGGTCTTCGCAGGTGGCCCTCGGGCCCCGAGCCGCTGGGTAAAGGGTG
ATGCCTAGCCTGGCTTATTGCACCTTCTTTTGGCGGTTGGCTTGGNGCGAATCTTCATC
TTAGCACATTTCCCTCACCAGGTGCTGGCTGGCCTAATAACTGGCGCTGTCTGGGCTGG
CTGATGACTCCCCGAGTGCCTATGGAGCGGGAGCTAAGCTTCTATGGGTTGACTGCACTG
GCCCTCATGCTAGGCACCAGCCTCATCTATTGGACCCTCTTACACTGGGCCTGGATCTT
TCTTGGTCCATCAGCCTAGCCTTCAAGTGGTGTGAGCGGCCTGAGTGGATACACGTGGAT
AGCCGGCCCTTTGCCTCCTGAGCCGTGACTCAGGGGCTGCCCTGGGCCTGGGCATTGCC
TTGCACTCTCCCTGCTATGCCCAGGTGCCGTGCGGCACAGCTGGGGAA

Sequence 1877

ACCCCGCGTCCGCCCTTAAGAGACAATGATTGAGAAAGAGCCATGTGGCTTGGCTCTAGA
AACGTCAATTATCATTAGGACCATCAGATTTTAGATTAAGCTGCTATTGAATTAATAAAAT
CCCAATGAAGCAGAGTTATAGGGATAGATTTATAGCTGGCAGAGTGGTATCAAAGGAGAA
AAACAGTGA AAAAGCCAATTTCACTGGTTCGTTCAATCCAGCTTGTGCTAATATTAGTT
ACCCTTGTTTTAAATGACAGAGAGTGGCTGGAATCTGTAGCTAGGGGAGGGGCAACACTGT
TAGATGTGAGGAAAGGAAGTGCCAAAAATGCCTGGACAGATGGCTTGTCCCAAGGCCAGG
ACACACACTTTAAAATCCAACATTACCTAAGCAAGTAATTCTTAAAGATCTTACAGAAA
CGCAGAGTCAATTCAGGTTTATAAAGGAAGGCTTNAGGGGAGAGAGGAAGGCCTGGGGGG
CCTGGACGAAAGAGGCCTAGGACCTGAAGAGACTCCAGCGAGTCTTCGGGAAGC

Sequence 1878

AGTCGACCACGCGTCCGCAGCATCGTCCGAGACTTCCAGACTCCCGGCCAGCCATCGAG
GACCTCAAGTACTGCCTGGAGAGGACGGACCAGAGGCAGCAGCTGCTCGTGCCCTCAAG
GCTGCCCTGGAGACTCGGCTCCTGCATCCAGGCGTCAACACGTGTGACATCATCACCCTC
TATATCTCTGCCATCAAGGCGCTGCGCGTGTGAGCCCTTCCATGGTCATCCTGGAGGTG
GCCTGTGAGCCTATCCGCCGCTACCTGAGGACGCGGGAGGACACAGTGCGGCAGATTGTG
GCTGGGCTGACGGGGGACTCGGACGGGACAGGGGACTGGGCTGTTGAAGCTGTCCAAGAC
CGACCCGGCGAGCCTGGAGACAGGCCAGGACAGTGAGGGATGACTCAGGCGAGCCAGAGG
ACCTGGGGTCCCGGACCCTGTGGATGCCCGATCAGGGGAAAGTCGAGCTCCAGCC

Sequence 1879

GTCCGCACAATTGAAAACCTGGGAAAAATAATCTCGTGGTTTCGGTTTGTAGTTTGAGACG
CAGTCTCACTCTGTGCGCCAGGCTAGAGTACGGTGGCCCAATCTCAGCTCACTGCAACCT
CCAACCTCCCAGGTTCAAGCAATTCTTGCCTCAGCCTCCCGGGGTAAGTGGGGATTAC

TABLE 1

312/467

AGGCGCGCACCAACACGCCCAGCTAATTTTTGTGTTTTTAGTAGAGATGAGATTTTGCCA
TGTTGGCCAGGTTGGTCTTGAACCTCTGACCTCAAGTGATCCACCCACCTCGGCCTCCCA
AAGTGCTGGGATTACAGGTGTGAGCCACCGTATCTGGCTCTCATATTTTTATATACAGA
TTGAATATCCCTAATTTGAAAACCTGAAATCTGAAATCTTCCAAAATCCAAAACCTTTTG
AGCAGTTACATGATATTTGAATGAACTGCTCATAAGAA

Sequence 1880

GAGGAAACCAAAGTGCTCTGTATCCTCCAGTCTCCGCGCCTNCACCCAGCTCAGGAACCC
GCGAACCTCTCTTGACCACTATGAGCCTCCCGTCCAGCCGCGCGGCCCGTGNCCGGGT
CCTTCGGGCTCCTTGTTGCGCGCTGNTCGCGCTGCTGCTCCTGCTTGACGCCGCCGGGG
CCCTCGCCAGCTGCTGGGTCCTGTCTGCTGTGCTGACAGAGCTGCGNTGCACN.TTGT
TAACGCGTTTACGCTGAGAGTAAACCCCAAAACCGATTGGTAAACTGCAGGTTGTTTC
CCGACGGCCTCGCAGTGCTCCAAGGTGGGAAAGATGGTANGCTCTCCCTTGAAAGAACCG
GGTAAGCANAGTTTATGTCTGNNACCCCGGAANGCCCCCTTTTTCTTAAAGGAAAAGG
TGCATCCCAANNAAAAAATTTGGGACCAGNTGGGGAAAACCAAGGAAAAAA

Sequence 1881

GCGTCCGCCCTGGCTCCTCCAGCAAGACCTCGTCTTTGCTTGTCTGCTCAGATGCTGGT
CATCCTGGGCATGTCCCAAGTGTGGACTCTGGACTGGGAAGGGGGCAGGCCCTTTGGAC
CTGCAGTTGGCCTCAGCAGAAGGCCTTGCCCTTGTTGTATGTGACTCCATATCCCGGGAGCA
GTTGACCTTTGCCAAACACTTTACAGTTCTGGAGGAGGAGGTAACATAGATGCCTGGGCC
TGATGGTGGGGCCATACCCATGTGTGCGCTCTCACTCTGGCAGCCTCAGAGGCCCTTG
TGCTGGCTCCCATCTCCCTCCATTTGCAGACCAGGAAGGAAGAGCAAGCTGTACAAAGG
GAAGCAGAGCCTGGGGTGGGGTGTGAGCAGGGTGACCCCTCATCTGAAAGGCCCAACCA
GGGGGGAAGCACCAGCCTTAGTGACGCCCTCTGACCCACCTTAGAATGGAAAGCCTT
CACCTGCAGCCAGGCCTTCTCCCCG

Sequence 1882

AGTCGCCCCGCGTCCGGTGATTCCAGGGTGCAGAAGGGATTTCATATCCCAGAACGCTTT
AAGTGACACCTGCAGGATAAAGAGATACCGTTACATTATTAATGATTCTAGGGATTCT
ACTGGGGGATATTTTTGTTGCTTTTACTTTTCATGGTTAGAGCTACAAAGAACAGTGATT
TTTTTTTTTTCTCCCTTCCCCATTGAGAAACATTATACATTGGGCCATTTTTCTTTCTC
CCAAAGAAGATTTCATGGATAGTCAGACTGAACTGTGTGCAACAGGAAAAGTCAAAAGGGA
AAAGGCAGCTGATGAGGTTTCATGGTTACATGTTCTACATCATGCAGAGTAGCTTGAAATC
TAGTCTGGAGAAAACCTGGATCAAGATTCTAGCCCACTGGAGTTGCAAGGAATGAGAGGCA
AAAATTCTAAAGATTTGGGTTATATTTTCAACTTGGGGGACAGAGAGAAAATGGAGAGCAG
GAATTACAGTTCCAACAAACATCATGATAGTC

Sequence 1883

CCACGCGTCCGACTAGTTCTAGATCGCGAGCGGCGCCCTTTTTTTNTTTTTNNCACGCTT
AATTCACTTTATTTTTCTTGNATAAAAAACCTATGTTGTAGNCACAGNTGGGGCCTGAGT
CCGNTGCACGGAGACTCTGGTGTGGGTCTTGACGAGGTGGTCAAGAGNAACTCCTNGATA
GGGAGACTTGGGTGAATACANTNTCCTCCANAGGTCCGGGGNGTTCATGGTATGCTGTA
NGGTCCTTAAAAAATGGG

Sequence 1884

GTCCGAAAAAATGATAATGTGCATAAAATTCAACCCAGCTTTCAAAGTCCAGTCAAATA
TCAGAAATCATGAGGTCCAATGGATTTGTTTAGCAAATACCGAAACAATAGTTATTGAC
CACAGTATACCAATGGAAGAGACCAGCACCTGGGCGTGGACCCAACAGAGCATTATTT
GAGAATGGCAGTGAGTTTCCCTCAGAGCTGGAGGACGGGGACGACCCAGCAGCCTACGT
ACCAACCTGTTCATATTACCACCTGGTCCCCTTCGAGACAGACATTTGGGACTGAACCTCT
CTATCAGGCCTCCCCCGCCTCAAGCTGTTCACTGCC

Sequence 1885

CGCGTCCGCACAACAAGACACTCCAATTGTGATTTGAGTTGAGGATCTCTGCCTGCCTTC
CTGCCGTCTTCTTCTTCCCCGATCCATGCTACTTTTAGGGGCTGCGGAGAGCAGCAGC
AGAGCTGAGTAATGATACAGGGCACCACGGAGAGAAAGTAGAACCATTTCACTCCTGGGA

TABLE 1
313/467

AGATGGGGTATTTCCCACTTCCAGCAACGAAATAACAAATGAAAAGTTGCATACTTATTG
ATGTATTGTATGAGCCAGTAGCATTATGTACAAAACAGAAGTCAATGCAACAGTATGT
ATGTGTGCCTGTGTGTGTATAAAAATAACCATTGAAGCTAACTTGCTAATGTACTTAGGC
AAGCCACTTCCCATCTCTGGGCCTCGTCTTCTCCTCCTCTAAAATCAAAGAGCTGAATTA
TGTGATCCTTGAGGTCTCTTCCACTTATAATACCAACTGTCTTGTGCACTGGCAAATTA
TATTGGCCTCTCCTTATGTGGTGGGTTTTTTTGGGAGGGNCATAGTTNCTTATACACAGG
ACACCTGCATNATCNAAGGGCTTTTTTTTCTAAAAAATAAATG

Sequence 1886

CGTCCGCTCCTGAGTAGCTGGGATGACAGGCGTGCACCTGGCAGCTTTTTCAAAGTGTTG
ATGGTAATCTGAGGCAATCTAAGGGAGTCATTTTTTAAGTGACTTTATACAGAAAAGATTG
GTAAGAGCCAAGGGGTAGAAGTGGCATAAATGTCTAAAGCAGGGAAGTGACAGGGACTTT
CATTGTTCTTGGCTGAGGAGAAGCGGGAGTGGCTGATGGAAGCACCTAAATGATGCCTTT
GTCTGTGGGAAGGCAAATGATGCCCCAGAGCTCTAACCAGGTTTGCAGCCGCCGAAA
AACAGGAAAGTTGGGAAGCGGGGGTAGGACTACACTGAATCATTAAACAGTGCTGTAACT
ACCCATGTGGCCATTAACAATGGACCTTTGGGGGAGTTTTCTAAACGATCACTCTGGA

Sequence 1887

CGTCAAACACCCGAGGCTGTCGATTTTCATCATCAAAGAAATCAAGACGATAAGGGCAGC
TCACTCCCCATCGGGAAGAGATCCAGCAACGCGCGCGTGGCGTATTCGCCGTGCTCC
ATCACCTGGTCAACATGGCGATAACCGGCGCTGTCCAGTTGGGTTCTAATGCATCTCGT
GACAGGCGCTGACCTTTTTTCATCACCAGCGCATGACCGTGGAGAAAAGTGTGTGGGCAA
ACGCGCTGCATAAGCGTATTCACCGGAACAATCAGTACGCCACGCTGCATCGTCGGTAGC
TGGTAAAGGGTGGAAAGGCGCGAGGAGATAATGTCCTGATGAGGCGAAAAAGTGTCTGAG
GGAAGAGTTTTCCAGTCCGCCAGATTTCATCACCATTGATCGGTAAAGTGGCTGATTCA
TCATGCAAACGCAGAGCATTTCATATCTGGTGCAATGAGTACCACCGGACCGGCGTGA
CGTTCGGCA

Sequence 1888

CGCGTCCGTTTATTTTTATGCCCTTTTTGTGGATAAGATTCTTTAGATAAAATCTAAAG
AATTTAAGTGACTTTCTCCAGGTCATGAAGATTCAATGGGTAGAATTGAATCAGAATTG
AAATGTTCCAGATTCAATTTCTGTGTGTGTTGATAAAATTCATGGCTTCCAAAGTAAC
TGAACACTTCCTTTGGGCCCTTGGAGGGAATAATCCATTTTTTACTAATTACACTTTTTT
TTTTAGACATCTGGCAGTTCTTTGAACCTTAAACATATTCTCATGGCCATAGTTCCAAAT
AAGCCCGACGCAGTTGCTAAAAATCTTGCTGCACTGTTGAATACTAATAATGCAACATT
ATTGGATGTTTTGCAATTTGATGACCTTCATGATTCATTTATAAGTCTTTGTAAGTGCT
TAAGTGACCCCTCACTAGTGAATAATAAATGTTCTATATCATTTATTATTATTTGTG
TATTCTCTACATGATATTTTTTT

Sequence 1889

CCGCGTCCGGGAGGATGGACGTACTGGTGTCTGAGTGCTCCGCGCGGCTGCTGCAGCAGG
AAGAAGAGATTAAATCTCTGACTGCTGAAATTGACCCGGTTGAAAACTGTGGCTGTTA
GGAGCTTCTCCAAATTTGGAGCAGTTACAAGAAGAAAATTTAAATAAAGTATCGACTGA
ATATTCTTCGAAAGAGTCTTCAGGCAGAAAGGAACAAACCACTAAAAATATGATTAACA
TTATTAGCCGCTACAAGAGGTCTTTGGTCATGCAATTAAGGCTGCATATCCAGATTTGG
AAAATCCTCCTCTGCTAGTGACACCAAGTCAGCAGGCCAAGTTTGGGACTATCAGTGTA
ATAGTGCTATGGGTATTTCTCAGATGCTCAAAACCAAGGAACAGAAAGTTAATCCAAGAG
AAATTGCTGAAAACATTACCAAACACCTCCAGACAATGAATGTATTGAAAAAGTTGAA
TTGCTGGTCTGGTTTTATTAATGTCCACTTAAGAAAGGA

Sequence 1890

CGCCCCGCGTCCGCTAATTATAAGCTTTACAAGTATTTATTTTATAAGGCTTAGACAGAA
TTATTGGAGTTTTAAATTAAGTGATTGGAAAAGAAAGGATGGTATGTGTATGAAATGTT
AAGATCTACGCAACACTGCTATTTTTTCTTTAATATTTGTGCTGCATAACAAAAGCC
ACTAGACTGTTACTGTCTGTCTGTCATGTGTTAACAGCATTTCTTAATGATGTATATA
TGGAGTGGTCTTCAATCATAGTGAAGAATTTAAAGAGAAAGTCAATTGTATTGGCATT

TABLE 1

314/467

TAATAAGAACAAAATTAGTTCGTCTAAGGGGACTGGCTGGCCACATATTTGTTCTTGCC
CATATGCTTTCTACTTCTTGTTCTTATTATGAAATTATGAATTTGAAGCCTCTGAAATGG
TGATCAGTTTTCAACATCTTTCAAAAACAAAATTACTA

Sequence 1891

GCGTCCGCGGCTGCTGTGTGTGAGCAGTGGACACGTGAGGGGGGGGTGGGTGAGAGAGAC
AGGCAGCTCGGATTCACTACCTTAGATAATATTTCTGAAAACCTACCAGCCAGAGGGTA
GGGCACAAAGATGGATGTAATGCACTTTGGGAGGCCAAGGCGGGAGGATTGCTTTGAGCC
CAGGAGTTCAAGACCAGCCTGGGCAACATACCAAGACCCCGTCTCTTTAAAAATATATA
TATTTTAAATATACTTAAATATATATTTCTAATATCTTTAAATATATATATATATTTTAA
AGACCAATTTATGGGAGAATTGCACACAGATGTGAAATGAATGTAATCTAATAGAAGCCT
AATCAGCCCCCATGTTCTCCACTGAAAAATCCTCTTTTTTGGGGGGTTTTCTTTCTTTCT
TTTTTGAATTTGCACTGGACGNGGACCGTCAGCCATGTNCAAGGATCCCCAGGGGGGGG
GNNGTCAAAATGGCTATTGGAAAATTGGGGTGGAAATGNATGCCTTTTTCACTTTTTTGA
TAAATAAACATGTAAAAAATGNNTTCAAAAAAATTAATTAATAATTAATTAATTC
NNAAAAAAAAAAAAAA

Sequence 1892

AGAGGATTCCCAGGGTTTCCAGGGGGCCAAAGGAGACAAAGGTTCAAAGGGTGAGGTGGG
TTTCCAGGATTAGCCGGGAGCCAGGAATTCCTGGATCCAAAGGAGAGCAAGGATTCT
GGGTCTCCGGGGCCCCAGGGACAGCCCGGGTTACCGGGATCCCCAGGCCATGCCACGG
AGGGGCCCAAAGGAGACCGCGGACCTCANGGCCAGCCTGGCCTGCCAGGACTTCCGGGAC
CCATGGGGCCTCCAGGGCTTCTGGGATTGATGGAGTTAAAGGTGACAAAGGAAATCCA

Sequence 1893

TCCGCCCCGCGTCCGCTTTTTCCNAACAAGGAGCATCCAAAGACACAGTGACTTGAGCTA
TAGATAGTAAAAATCATACGAGAGTTGAACTGAGTCAGGTTTAGGAAGCAAGTTTGGTTG
CATCAATTAAGCAGGCTCTTTTCAATTGACTGATGCTGGGGCCTTCAGTTTTATTCTCAG
TATAGATTGCCAGTATTGTTAAGAGTATCCAAAGGCCTTTCTAGATGGAGACAGAATAAC
TGACTTGAACATACAGTGTGCCTGTAAAGTGTCCAGGCTCAGAGCTGGTGAAAACCTTCT
GTTGGGCGTGTGCAGGGTTAACTCCTGAAGTAACTTGTGAGGACTTCAGTGCTTGCTGG
TGTCTGGGCAGCACCATGAATGCCTTTACCAAGACATGCCAAGTTGGATCCCCGAATG
AAGCAAGAGTGGCTTGTGGGTGTGACCCTTGCTCCCTGCTACACAGAAGCATCGCAAGGG
CTGCCTGTGTNGGTTTCCAGATGAAGGGTCTTGGGTCCCGGAAGCTTTGTGGTTGAGAGC
TCAAGTGGGACC

Sequence 1894

GTCACCACGCGTCCGCGGACGCGTGGGCGCACGCCGGCGGCGGAGGCCGGCTCTGCGC
TTCGGGCGCGCCCCCTCCCCCACCCGCTCACACCGGCACTTACTTCGGCTGTCTCCGC
TGCCCTCCAGCGGAGACGCAGCTCCTCAGGCGCCCGCGGATTTGTTGGGTGGCGGGCG
TCAGGGATTTCGAGTGGCCTGTGGTCCGCGTCTCGGGCCACTGGTGCGCCCCCGCGGCA
GGCAGAGCTCACGCTCCTGTCCCCCGGCTGGTCCGGGGTCTGGGCGCCGCGTCAAGGCG
GCTCCGACAGGACGCGCAGACCGGGCCGACGCCATGCC

Sequence 1895

NCCCCGCGTCCGATTTAAATGCCCTAAATTTTAAATTCATACCTTTCCATGATTCAAAAT
TCAAAAGATCCCATGGGAGATGGTTGGAAAATCTCCACTTCATCCTCCAAGCCATTCAAG
TTTCTTTTCCAGAAGCAACTGCTACTGCCTTTCATTTCATATGTTCTTCTAAAGATAGTCT
ACATTTGGAAATGTATGTTAAAAGCACGTATTTTTTAAATTTTTTCTAAATAGTAACA
CATTGTATGTCTGTGTACTTTGCTATTTTTATTTATTTAGTGTTTCTTATATAGCA
GATGGAATGAATTTGAAGTTCCAGGGCTGAGGATCCATGCCTTCTTTGTTTCTAAGTTA
TCTTTCCATAGCTTTTCATTATCTTTT

Sequence 1896

CGACCCACGCGTCCGCCCNGCGTCCGAGGGGCAACAGCAGAGCCTACAGCAGGGGGCACA
CTCCACCGGNTCCAGCCGCCTGCACGACCTCTACTGGCAGGCCATGAAAACCTGGGAGT

TABLE 1

315/467

CCAGCGCCCCAAGTTGGAGAAGAAGGATGCCAAGGAGATCCCCAGTGCCACCCAGAGCCC
CATCAGTAAGAAGCGGAAGAAAAAGGGATTCTTGCCAGAGACGAAGAAGCGCAAGAAACG
CAAGTCAGAGGATGGCACGCCAGCGGAGGATGGCACACCTGCAGCCACCGGCGGGAGCCA
GCCCCCAGCATGGGCAGGAAGAAGAGGAACAGGACAAAGGCTAAGGTCCCAGCCCAGGC
AAACGGGACGCCAACCACCAAGAGTCCAGCCCCTGGCGCCCCAC

Sequence 1897

ATTATATACTTCTGAATGGCACCTTACTTTTTGGAACAAATCTTCTGTTATTTACAAA
TAATAATTTTTAAAAACATAAAAAAAATCCAAAGCTGCTCTCGATAATAGTCAACAT
TTGCATATATATGGAATTTCTTACTTTTTCTCCAACTCTATTTAATAAACTTATTT
TAATGTTTGTGTATTTTCATGTATAATTGTGATCTCAATTATAAAAGTTTAATTCAGCATG
TCTTTGAGCCAATATAATTACTGCACACCCACTAAATTGGGATCAGCCATTATAAATAAT
GTAGTTTTAGAATAATAAACATGACACATATATATATATAAATATATAGTATATATT
GGCACATCGGTGAAAGTTTAATATGTGCAGGAAGGTTTTTTCTTTCTTCAAGTTAAAAA
TTATTTTTGCCATATGTAATTTGGTGTTCAGGCTGGTCGAGAGGATAAAAAATGGAT
TTTAAATCTGGGTACCGGATGGATCTTCNGGNGGTTAAGAAACACAGGGGNTGNGGACC
TTCCTTTTT

Sequence 1898

CCGCGTCCGAATATAGTATTTTTTAATTTTTGTGGGGATGGATTCTCAAATACTTGTGAT
TTTAAAAGATTCTAAAGCTAAAACACAACCTGATTTTAAAAAGAAATGATTCTCCTTACAC
AATTATAAATATTTGCAGTAAATATTTTCTTATAATACTGTTTTGACCCCATTTAAAAA
GTATTAGATTATATTCCTTTGATCCAATGAAAACTGAACCTTATAAATGGTTAGCTGAAA
GTAGACCTTATTCTTGTCTTCTTTAGAAGAGTAAAGATTTGTCCTAGGGAAGATGGCTG
ACTTCGGTTCCCAACATGCCGTATGCATTTAGACTGTAGCTCCTCAGCCCTGTGGACACA
AAATTTGGACAGCTTATTAGGNTACCGTTAGCAATGCTGGACCGGTTTCTTCAACACTAA
AGANTTTCACCGTTGNAACAGATTTCTCGTCTNATGGGGNCTGGTAAAAATGGT

Sequence 1899

GCCCTGGAGGGCTACTTGTAATCCTTAGAAGAAAAGCTGGATCTGGTCACGAACAAGCAG
CACAGCCCCATCCAGGTTCCCATGGTGGCCGGCTCCCTCTCGGGGCAACCCAGACGTGC
AACAAAGTGCGATGCGCTGTGCCTGGGCGTCCGCAGAACACCATTGTGGTGAAGGTGCCG
GGCCAAGAAGACAGNCACCACGAGGACGGGGAGAGCGGCTCGGAGGCCAGCGACTCTGTG
TCCAGCTGTGGGCGAGGCGGGCAGTCAGAGCATNNGGAGCAACGTACGCTCATCACCCGTG
AACTCGGAAGGAGTACCCCAATGGCACCTGGCTGGGCGACGAGAACAACCCC

Sequence 1900

NCCACGCGTCCGCCCCGCGTCCGGGCCGCGCGCCTGCTCTGGGCTCTCCGCGTGCCGC
ATCGCTTTCTTTCTTCTCTGGAGCAGCTATGGCGGCGGCGAAGACCCTGAACCCCAAG
GCCAAGGTGGCCGAGCGCAGGCGGCGCTGGCGTTCAACATTAGCGGGGCGCGGGGTCTG
CAGGACGTGCTGAGGACCAACCTGGGGCCCAAAGGGACCATAAAGATGGCCTTCATCCCA
GAATAATCACTGAAGGATTTGAAGCTGTGAAGGAAAAGCCCTTCATTTTTTGAAGAAGT
CAAAGTAAGCAGAGAGATGGACAAGGAAAC

Sequence 1901

CCACGCGTCCGCCCCGCGTCCGAAACATGAGGTTCTCTCTACTGGTCCTCTTAAGTGTGG
TGTTGAGGCTTATATTTGTGTAATTTTTGGTGGGTGAAAGGAATTTTGCTAAGTAAATCT
CTTCTGTGTTTGAAGTGAAGTCTGTATTGTAAGTATGTTTAAAGTAATTGTTCCAGAGAC
AAATATTTCTAGACACTTTTTCTTTACAAACAAAAGCATTTCGGAGGGAGGGGGATGGTGA
CTGAGATGAGAGGGGAGAGCTGAACAGA

Sequence 1902

GTCGCCCCGCGTCCGCCCTCCCTGGCAAATAATATAATAACCCGTGAATTTTCAGGAATT
TAAAAATTANGCTTTTTTCCACTTAAAGGAGAAAAATATTTGGGACTAGCAGCAGAGGCCA
GTAAGAGATGTGAACCTTGGTGAGCTCTGATACAGTGAGAAGAGATTATACTCATGAAAG
AGAATGTTAGTGTTACAGAGAAGCAGCCGATAGCAAATCGACTGTAGAGACTTGGCGGCG
GTGGCATTGCCCCAGGTCGTGAGCAGTGTGGTATTATCTATGAGAACTTGAGCGACAGAG

TABLE 1
316/467

TATTTCTTGATGAATTTATAGATCATTTGAGATGTTGAGTTACTTTAGTTTAGTTTTGTT
TTGTTTTTCAAATAAGTAGAGACTATTTGTAACAAACGAGGAAAGGGAAATGAAATGGG
GCGTGTTTGATAGCAATAAATTTGGTTTCTTTTAAAGAATTCTAAAGGGTCTGAGAC
CCTGNTAGCATTAATTTTTTGAGTGCCCTTCTTTTTNCCCTTCCCCTCCCTTTTTNTT
TTCTCT

Sequence 1903

GCGTCCGCCCCGCGTCCGGGAAACCCCTTCGATGACCTCCAGAGCCTCCCAAACGACGT
GATCTCTTCCCTGAAGAACAGGCTGAAAAAGGTCTCCACAACCACTGGGGATGGTGTGGC
CAGAGCGTTCCCTCAAGGCCAGGCTGCTTCTTCGGTAGCTACCGAAACGCTCTGAAAAT
CGAGCCGGAGGAGCCGATCACTTCTGTGAGGAAGCCTTCGTGTCCCACTACCGCTCCGG
AGCCATGAGGCAGTTCTGCAGAACGCCACACAGCTGCAGCTCTCAAGCAGTTTATTGA
TGGTCGATTAGATCTTCTCAATTCGGCGAAGGTTTCAGTGATGTTTTGAAGAGGAAAT
CAACATGGGCGAGTACGCTGGCAGTGACAACTGTACCATCAGTGGCTCTCCACTGTCCG
GAAAGGGAAGTGGAGCAATTCTGAATACTGTAAAGACCAAGCAA

Sequence 1904

CGTACGGGGTGCGGTTGGCGGCGGCGGCTGGGCCGGGGGCTGCCGGCTGCGCTCGGGCCG
TGCGCGGCGGCGGTGCGGNACGCCATGGACTTCAACATGAAGAAGCTGGCGTCGGACGC
GGGCATCTTCTTCACCNCGCGGNGCAGTTNACGGAGGAGAAATTTGGCCAGNCTGAGAA
GACTGAGCTTGATGCCACTTTGAAACCTTCTGGCCCGGGCAGACAGNACCAAGAACTG
GACAGAGAAGATCTTGAGGCAGACAGAGGTTCTGCTGNAGCCCAACCCAGTGCCACGAG
TGGAGGAGTTCCTGTATGAGAAGCTGGACAGGAAGGNCCCCTCAAGGGTCACCAACGG

Sequence 1905

CNCGCGTCCGGTGATCTTGCCCATTGATTTCTAAATGTATTAACCTACTTAATTAATCC
TGAATCTTTTCCAGGCTTAAGTGGGATAATGTTTTATTGTAGATGCATATTTCTGGCT
CTACCCAGTCTTTCTTTGAAGACTTTATCATCCTATTTTCTGAATCCAGTGGCTGACTTT
AATCTTCTCTGGAGGAACTAGATAATTTCTAGACTAATGCTTACACTCATGATCCAGATT
GTAATTTCTGAATCCTTCTTCCAAATAGAATCAAAACAAGAAAGGGGAAAGCCTCTCAA
AGCAACTGTGCGTTAATAATGAAACACTCTTTTTTCTAATCCAAGGAGGGTTTCATACT
TTTTCTTAGTTTTCTGCCCTCTTCCCTTCTGATCAATAATTGTAATAGGGAAATTTGCAA
TTGTGCCAATACTCAGATTCAATACTGAATCTTCTTGCATTGGAATTCAAATCCAA
GGTTAAACAAGTGTATGTTTCCAAAACAATCTTATTGGATATGGATTTTCTTAGGGG
GAAGGTTCCAGAAATGATT

Sequence 1906

GANCAGGCTCAAGAGCAACATGGAGGTCTGCACTTAATCGCTCCTCTCCGGGGGGCGGCCA
TACCGAGGAGGCGTCTTCCGTGCAGGCAGGCTCTCCTGGGGACCTCAGAGATTCTCTC
CAGCGGCAGCGGAAAACGGACAATGGGTGGATTCCGGTCCAGATTCTGGTAGGAGGGAGT
TTGGGATCGAGATCTGGAAGAAAGCACTAGACTGGAAGAGGACGCGATGGAGTCGGAGCC
GCTGGCGGGGACAAAAACAGAGGCCGGGGAAGGCGCGGTGGGAGGCAAGGCACGGATG
GACTTTACCTGCGCACGCGTGCAGCCATCTCCGCGCACAGTGGTGGCCACCGCGACTGG
TGCTGAAGTGTTGGCCGCGTGCCGGGCGCTCCGCTGGGACCCGGGTGCTGGCCCTGAGT
CTCAGCTTTCTCATCTGTACGGTTGGGACAAGTACAGTAACCCTCTCCCGTCAAGACGGG
CC

Sequence 1907

GTCGACCNCGCGTCCGAACATCGTCAACTACGGCATCCAGCCACCGTGACATCGACGA
GTGCATGTTGTTCCGGTCCGAGATTTGCAAGGAGGGCAAGTGGTGAAACACGCAGCCTGG
CTACGAGTGCTACTGCAAGCAGGGCTTCTACTACGACGGGAACCTGCTGGAATGCGTGGA
CGTGACGAGTGCCCTGGACGAGTCCAAGTCCGGAACGGAGTGTGTGAGAACACGCGCGG
CGGCTACCGCTGTGCCTGCACGCCCTTCCGAGTACAGTCCCGCGCAGCGCAGTGCCT
GAGCCCGGAAGAGATGGGACGTGGACGAGTGCCAGGACCCGGCAGCCTGCGGCCCTGGCC
GCTGCGTCAACCTGCCGGGCTCCTACCGTGNGAAGTGTCGCCCGCCTTGGGTGCCCGGGC
CCTCCGGCCGNGATTGCCAGTCCCGAGAGCCCGGCCGAGCGTGCCCCGGAGCGGGCCGA

TABLE 1
317/467

ACGTGTGCTGGAACCACGCGGAAGAGGACGGNATGTGCCCTTGCCCCCTGGCCCCGGGCC
Sequence 1908
ACCACGCGTCCGGGCGGCCCGGCCAGGCCCCGGCACTTCCTCGTCCTCGGCCCGGGTGC
CCTGCCCCCGTCCAGGAGCCCTAGGAGTGCTACGGGGGGCGGAGCCTTGCCCCGGGCCG
TGCCCCGTCCCTGGATTGCGGGCTGGACGCAGCAAGCAGGNGCGCTGTGTCCCAAGCTC
CCCGTCCTCGGGGGAGCTTTTGAAGAGTCCCAGATGGAAGCGACCAGGCTCCGGCAGAA
GGCAGAGGAGCTAGTGAAGGACAACGAGCTGCTCCACACCTTNTCCCTCCTTGGGCTC
CTTCGACCCCCTGGCTGANCTCACAGGAAAGGACTCAAATGTCACAGCATCTCCACAGN
CCCTGCATGCC

Sequence 1909
ACGCGTCCGGAAGGGTGTTACATGTGTCTCTTCAATACCTTTGGTTTTGGGAAGATCTCA
GGAACGGCCTGCCTCACCGTCTATGTACAGCCCATAGTATCCCTTCACTACAAATCTCT
GAAGACCACCTAAATATCACTTGCTCTGCCACTGCCCGCCAGCCCCCATGGTCTTCTGG
AAGTCCCTCGGTGAGGATTGAAAATAGTACAGTGACTCTGTCTACCCAAATGGGACC
ACGTCTGTTACCAGCATCCTCCATATCAAAGACCCTAAGAATCAGGTGGGGAAGGAGTG
ATCTGCCAGGTGCTGCACCTGGGACTGTGACCGACTTTAAGCAAACCGTCAACAAAGGC
TATTGGTTTTAGTTCGCTATTGCTAAGCATTGTTTCCCTGGTAATTCTTCTCGTCTA
ATCTCAATCTTACTGTACTGGGAAACGTACCGGAATCAGGACCGAGAGCCCTAAATAAG
TCACACAGCACCTTGAAAGGGGATTCTGGNCTACTTGGATTGGCACAAGAGAAAAAG
CAGGAGGGAAAGG

Sequence 1910
GCGTCCGCTAGTTCCTAGATCGCGAGCGGCTGCCCTTTTTCTTTCTTTTTTTTTTTTT
TGAGACACAGTCTCACTCTGTACCAGGCTAGAGTGCAAGTGGCACGATCTCAGCTCACTG
CAACCTCTGCCTCCCAGGTTCAAGTAATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGAC
TACAGGCACGTGCCACCACGCCAGCTAATTTTTGTATTTTAGCAGAGATGGGGTTTCA
CCACATTGGCCAGGATGGTCTCGATCTCAACCTCGTGATCCACCCACCTCGGTCTCCCAA
AGCGCTGGGATTACAGGCGTGAGCCACCGCGCCAAGCCAAGGTCTGCATTTTTCTTTAGA
ACTCAGAACACCCAATAGTCCTAGGCCCCCATCCTCGCATGGCAGCAAGCTAAATAAGCA
TNTTCCCACTGCGAGTTGGGG

Sequence 1911
GTCCGCTGAGAATGGATAATCTCACTGCAGGTATTCATAATAGGCTTGGATTAAACCA
GGGACAATGGGCAGCAATAGGCCATAGGTTAAGCAGCAGCAACTAGTCACCACTGGACTG
TCTTCTTCTCCCTTCCCATATCCACATTCTCCTAAACATGATGTACGTGTAGCAACA
GTCTTTTAAAGTCAGATGGTCAGACTAATTATTTTACAATTTAAGTGTAAAGTGTATGAC
ATGAATGGAATCTGTGAATCGGAAAACCTTACGTAACAGCAGAGAATACGTATGTTATATG
GAATAACCTGAGTTGAAGGTACAATTTTTTTCCAGCTCTTTTATTCCTTTAACTGCTTA
ACAAAAGAAAGAGTCTCCAAAGTTTAAAAAACCTTTGAAAAATATACAGCTTGATATTAT
TTACATAAAATATGAATCCAGGTTCCAATATCAAACAAACATTGCTATGTCAGAAACACA
GTGGAAGGCAGGAACGTAACCTCACTGCCTTTTAGAT

Sequence 1912
CCCGCGTCCGCTCTTTTCTTCTCTNTAAAGTGAATTATTCCTTTTTTTGTTTTATGTAA
CGTGATATATTCTTAGTTTTCTTGAATCATTGTAATGTTAACTTTGTTGTTTCAAAT
ATCTTGGTGATTGCTTCATTATCTCTTCAACAAAAAAACCTTTAATTTTGCCATTGAAA
CTGTAGAACTATGCCATGCTTTTATTAGAAGCAGTGCTCTGTGTTAACAACAAGAATGGT
GTAATTAGAATTGGGATGTGGATTTTACTGTATGACAACACATTTACAGTTCTGTAATG
CAAGGATGCAGTTTAAAAATGTGAAGTAGTGATGGTTTTTGAATAAGCTTTAAATATA
GGGATCTTGAAGGCTCCCTGGGGTAACTATTTTATACTTAGATAAAATGGCTAGTCAT
ATCTGTGTGGTTTGNAAAGGTTATTTTTTAAATTTTAAAGATTACAAATTTACAAATGT
AGAAATGAGCCCAACTATTTAAATTTTAAACAGTAAAAACAAA

Sequence 1913
CGACCCACGCGTCCGCTTTGAAGCAGGAAAAGACACGTCTCTAGAGCAACATGGAAAGGA

TABLE 1

318/467

TCCAGTATTTGTTTTAGGCAAAAGCAAGCCTCCAAAAGCCCCCTTGGTTCTTCTCTGTGT
GTCTCGCCCCCTTCTGCCTTGTACACCAGACTGCCGGCAAGCAAGCGGGGAGGTGGCGAAC
AGCTGGGATCCTCCAGTGAAAAGTTTGCTCAGCGCGAGAGATGTCAAGAGGCTGGGATTG
TCGCCTATCGGGAGGTGGGGAGCTCTCTCACTCACACTTCCTGGGAAATGAAGGAGAACT
AATAGGCAGCCCGCATTTGCAGCCAGCCAACCTGGGTGGTATTCTTGAAGTGAAGCGCT
CATAAATCCCTTCTGGGGCCAGAGCCGGTTTCAAGCTGCAGGATTTGGGTGGCCTGCC
TGCTCTTTGGGAGCGGGCTTGGGAAGCTGAAGAAATTGAATCAGGACCTCAGGCCCTTTA
CAGACTCCC

Sequence 1914

CGCGTCCGCCCCGCGTCCGCTCAGAAACCCCTGCCCTTCCCTTCAGAAAACGATGGCAG
GCATTCTCTGAGTTTACAAGCAGAGACTCACTCCAACCCAACTAGCTGGGAGTTCAGA
ACCATGGTGGAAATAAAGAAATGTGCATCTGGTCTCTTCTGTTGTTTTATTTTATATCAG
ATTAATTTCTTTACCATGTTGGCTAAGTCTAAATATTAGAGATGAGGCTGTGCCTACTC
CCTGGCCAGCTCTGCTGATAGCCTATGATGGGTTCCAATGGGAAATGACTCTTTACTATT
AAAAGACAAGGAAAGCTCTGACTTCGTACTTCTCTGATGAATGGCAATGTAAATGAACAA
GGCTCCATGTGACTGGAGCATGGAAGTGAATGCTACTTTCTTAATTTAATCTGCCCTGTC
CTACCTGCTCCTCTGATTGTTAGCCATCACATAACTTATTGAATGCTTGCCATGTGCCAG
GCACTGTGCTGAGTGCCATACATACATTTTCAATTAATTATCCAATAATCCTACTTACTA

Sequence 1915

CCGCGTCCGATTCTNTAACATCTCTGTGAGGAAGGAATTTTTATCCTTATTTTACAGATG
AGGAAGCTGTTTGGAGATAATTTAAGTGACTTGCCCTGGGGAATCTAGCCAGTAGTAGAGT
ACTGATTAATCAGGTGCTGACATCTGCTCTGCTTTGTGTATGTAATTCAGCAGTGCTTCA
AAGATCCAAGAAGCTGTAGCAGATCTCAATACACTCTCCTATAAAATTAGTGAATAATCA
CCATGACAAAATTGGTATGGCGGAACAGTCATTATACATTATTTAGACTCATTCTTCTT
CCAGTGCCCTTATGATTATTTCTACCTTTACCATGG

Sequence 1916

CCNCGCGTCCGCCCCGCGTCCGCCCCGCGTCCGATATTGCTTCAGAAAACCTGAATGTGTA
TGTCGGTCATATTGCCCTTATAACCATGCTAATATCTATGCTTTATACATACTCAAACCT
GCCTTGCTTAAAAAATACTACTACATACTTAAATCAGGAATTCTAGCCATCTCACAG
AATACCAACTAAAACTAAGTGCATTGAGATCTGAGATTGGTAAACCCAGATTCATTTACC
ACAGCTGTAATTAAGTTTTAGAACTATTCTCTTTTGGGGAATCCATTGAAGTTAAT
TTCTGTTATCTTATTAGAAGAAATGATGTTGATATGTGTTTCAGATTTTCCATTTGAAA
TCTTATAATTAATTTGATTTATTTACTGTAAGTAGGAGGTATNAATGACACTCTTAAAT
GGAAGGAGGGGTGTTTTAGTGTCTGTNTTAGGTCAAAATTAGTGATTCTATTTTATCAA
AAGTTTTATCCTGAAGTTTCAGGACCACTCTTCTTAATNAACTTGTTAATGGGAAGCGA
GCCTTATGAACATTTAAAAAT

Sequence 1917

CGCGTCCGCAGCAGTAATCCTTTAATAACTGGCACGAGCACTTTATTCTTCTGGTGAGCT
CCCTGAATATTTATTTTCTGATTATAAATTTCTATATTAGTAGCATTTTTTAATTATT
ACTTCTTCACTATAGAGCATTTACTTTTAGTCTCTAGATGTATTTTGGAAATGCTGTAC
TTGGCATAACATAGATTAAATCATAATGCATGACTAAAACTCCTTGGATTTATTTCCC
ATTTTAAATTTTATAGCGTAAGTTCAGATTTATAATCTTTCTCTAGACTTCCATGGTCT
GAATGTTGCCTGCTGAAGTAGCAACCTAAAAAGTATCCCCTGCTTATGCTTCTCCAGTTG
GCCCTCCATGTCCATAGGCTTCGCATCTGTGATTGAGCCCACTGTGGGTCAAAAATATTT
GGGAAAA

Sequence 1918

GCCCGCGTCCGCATCCCTTGTATACCATCGTAGACTTCATACTGGAGAGAAACCTTACAA
ATGTGAAGAATGTGATGAAGCTTTCAGTTTCAAATCGAACCTTGAAAGACATAGGAGAAT
TCATACTGGAGAGAAACCTTACAAGTGAATGATTGTGGCAAGACCTTCAGTCAGACATC
ATCCCTTGTATACCATCGTAGACTTCATACTGGAGAGAAACCTTACAAATGTGAAGAATG
TGATGAAGCTTTCAGTTTCAAATCAAACCTTGAAAGACATAGGATAATTCATACTGGAGA

TABLE 1
319/467

GAAACTTTACAAGTGTAATGAATGTGGCAAGACCTTTAGTCGGAAGTC

Sequence 1919

NGACCNCGCGTCCGCGCTCCGCTGCCNNGGGCGGGAGGGAGGAATGGTTGCTTCACGCCC
CGGGGGAAGAGACNGGAAGCTCGGCTCTGGGTGCGGGCCCCGGGGTCTCCGCGTGGGGC
GCACCGTCCGACCCGCCCTCCCGGTGTGCAGCGCCCCGCACCGCCCCGCCTTGCTGGG
AGAAGCCCCGGCGGGACGCGCCGGGCTGGAGTGGGCGGTTATAGGCTTTGAGCTAGGCCGC
TTCCGGGAGGCGGAGCTCACACCCCATTTCTTT

Sequence 1920

GTCCGTTCTTGATTCTGGAAGTCCAGTGGGTCTGCAGCTGAAAAAGCCCTGGGTCCC
AGCAGCAGAGAGACAGGACAGAGGGGATGCTTGGGCGGGGAGGGACGGTAACCTGCAGAA
CAGATTCCATTTTATAGAACGAGTACACGTTTGCTAAACAGTCCTGCTTTCCAGACT
GGATTCCCACCACAGGGACAGTCGGAAGTCCAGGACTAGCTCCAGCGACATCTTCTCCG
AATTCAAGCCTTCTATCAATGTCAAAACAGCTATTTATAAGCCATTTTCATTGTACT
TGATAACAGCACGAGTCCCAAACTTTAGAAATAAAATAGGACATTGGCTTGATTGAAA
AGAGGGACTTTTAAAAATTGTTCTTTCGTGAGAAAGCCTTTTGATGACT

Sequence 1921

GCGTCCGAAAAAATAGCATTATACCTCTTCTGTCTCAACCGCCATGAAAATTCTGAA
CACTCCAAATTGAGTTGAATAATCCAAAACAAAATTTATAAGTATAAAATAATTTTACTT
CTTATAGTAATAGTATACTTTAAAAAGCCTCAGGGTATATTATCTTCTAAACAGCTACAA
TTCAGTGCAGCTACATTAACCAACTATGTTCTCTAGTTGAGAACAAGTGGCCTATTTCA
CTGCTGTGTAGCCTCAGTGCCTAACATGGGTGCCAAATAAATATTCGTAGAATTACACTG
AATTGTAAAAACCATTCGTTTTGTTTACAATTGCCAAAAATCTCAAAAGGCCCTGTATT
TATGTAATTCCTTGAAATTATTATTTATTTGATTTCTCAGTTATTGACTGGTGGGGTG
TGACTTAGTCATAAGTACTCAATATTATAAAACCTCAAATAATTGACTTGGATTTTACA
CAACATCCTTCCCTTTTCTACAAGTTAAATTTTTTACC

Sequence 1922

TTGGTATTCTTGGCTAATTTCTTAGCTACTTGAAGGTTAATTTGCAAGACTTTTAAACC
TTAGAAAAGTTTTAAGGTTGCAAAGTTATCAACACTGGGGCAGAGGGTGGAGAGGCCAAT
GCGGGTAGAAGGAGGCAGTTATGTTTATATTGAAGGTGAAATTTTCTTTCATTTAGAAT
GGAAAAGTATCCCAAAATGTATCATTATAAACTAGTCAGCCTTGACTACAAAAATTGACC
TTTAAAGTTGCTTGAGAAAAACACAATGCAATCGTTGAGAAAGGGTCAACATCCTTTGGTG
CTAAATCTTGTGTATGTTTTGAGAAATGGCTTTTCTGTATGTTATAGAATAATCACTAA
AGGAAAGGTAGTTGAATTTAAAGTCATGAAGCAAGACTCTTAAATTCAGTTATTTTAAAC
AAGAATTTAAACCCCAACATCCTTGGCAGGCTTTGAAGCACACAGAATTTTCTAGNATT
TCTTATTA

Sequence 1923

CNCCGCCGGAACAACAACAGAAAGCTGTGTTTGTCTTTTTCTCTCAAATATATCTCCCG
TATGAGATTTGAGTCCCCATGTTTTCACCAAGCAATCTGCTATGTCAGCCAACCCANCA
TCACTTTCTACAGGAGGTTATGATTTTTGCCATTTACTAGAGGAAGATGTTTTATGAAAT
CAAGTTGGGGTTTGAATTCAGGTGCAGTCATCAGTTCTTTAGGGGCTGCAATGTTTTAAA
AAAAAATAAGTCATCAGATTTTAAAGAAAAAGTGATGATTTCTTATTGATTTTTGTAA
CAGAATATAGGCTCTTAACTGAAAATCCAGAACCAGAAACATAAATCTTGAGTTTCTTTT
CATGTACATAAAAAAGCAATAGCCGTTTTAGTATAGGATAGCCCTGAGCCCAAAAAGTAAT
AGAAATTTTCTCTAGATATTTTAAACAGAGAGTGTATAGACTGACTCTAAGTTAATAAA
TGTGCAAAAATATCTTAAACCATNCCCTNCCCTTTATTTCAAC

Sequence 1924

CCNCAAAAAGGAACCAGAGGCCACTTGTATATATATGGTCTCTTCAGCATTTATTGGTGG
CAGAAGAGGAAGATTTCTGAAGAGTGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGA
GAATTGCACTGCAACCATGAGTGAGAACAAATAAGAATTCCTTGGAGAGCAGCCTACGGCA
ACTAAAATGCCATTTACCTGGAACCTTGATGGAGGGAGAAAACCTTGGATGATTTTGA
AAGACAAAGTATTTTACCGGACTGAGTTTCAAGTCGTGAATTCAAAGCCACAATGTGCA

TABLE 1

320/467

ACCTACTGGCCTATCTAAAGCACCTCAAAGGGCAAACGAGGCAACCCTGGAATGCTTCG
TAAAGCTGAAGAGTTAATCCAGCAAGAGCATGCTGNCCAGGCAGAAATCAAGAANTCTGG
TCACCTGGGGAAACTAT

Sequence 1925

CCACGCGTCCGTCGCGCTCCAGCAGCATCCGCTTCAGCAAGGCCTGCCTGAAGAACGTCT
TCTCGGTCTACTCATCTTCATCTACCTGCTGCTCATGGCTGTGGCCGTCTTCCTGGTCT
ACCGGACCATCACAGACTTTCGTGAGAACTCAAGCACCTGTCTGTGTCTTACA
AGGAAGTGGATCGCTATGATGCCCCAGGTATTGCCTTGTAACCCGNTCAGGCCCAAGTTG
CTCAAGCTGTAAGCACCATTTACGAGGTCACTCCTCTGACAAGCCCTGGCCAGCCGG
GTGACATGAATTGCACCACCCAGAGGATCAACTACACGGACCCCTTCTCCAATCAGACTG
TGAAATCTGCCCTGATTGTCCAGGGGGCCCCGGGAAGTAAAAAGCGGGAGCTGGTCTTNC
TCCAGTTCGCTGAACAAGAATAGTGAGGACTTTNAGCCGCCATTGAT

Sequence 1926

GCGTCCGGTAAGTATTTTGAATTCAACCCTCGAATTATTTTCTCATTTCAGCATAGT
GATAGGGGATGCAATGAGGCTTCATTATTTTTATGACCTGCCCCTCATTTGCTCTGATG
TTCCCTAAATTCTGTAATCATATCATAACTTTTGTATGAATAGAGAGGAATGGGCTCAC
TGAAACCTGACACTAGAAATTGGTGGGTGATGCTCATAACTGCAAACACTTAGCTTATTG
AAGTGCCTCTATTTACATGTTCTTTAGTTATAATATGTATTTTTCTAACAGAAATACAG
TCTGTAATTGGTATATATTATACTTTGTATGTGTCACAACAAAAGCTAAACAGAGGCTAA
AGTCTTTAGCAGAGAAGAATGAATTN

Sequence 1927

AACTGTTTGGGAAAATACGTTGAGGGAGAGAAGACCTTGGGCCAAGATGCTAAATGGGAA
TGCAAAAGCTTGAGCTGCTCTGCAAGAGAAAATAAGCANGACAGAGGGATTGCTCTGGA
CAGANATGGAAGAGCCNGGGAACAGAGAAGTGTTGGGGAAGAGATAGGAACCAGCANGATG
GCAGGGGCAAAGGGCTCAAGGGTGAGGAANGCCNGTGGGACCCACAGANTATGGGGAGA
TAAAGGACATTGCTTTTGTCTTTGGTGGCACCGTAAGCTCCTTGACTGTCTNCAGCACCCA
GAATCTCATTAAAGCTTATTTATTGTACCTCCAACCGGCTTGTGTGCAATGGGGGTCTT
TTTGTGGAATAAANGAGCANACAGGTTTTCATGTGTACTGTCACCACGTGGGATGNGA
ACCAGATNGCATGGAANCAAGACGCTAAATGNAAGAGGGCCATAANGGNTGGGATTTCCC
AGGCNCCTTAAGAACAGCTTGTCTTTTTTTTTTCTTTCCAAAAA

Sequence 1928

CCGCGGTAAGTTAAAGACTTTAAGGACATTCAAAGTTTAAATAGTGTCAAATTGCAA
AATTTGGCAATCTTCATATAAATTGGTTTCTTTCTAACTTTTCAAAAATAACATTAA
TGTCAATTATAGGAAAACATAGTTGGAATGTAATCATCAAAGATCATTTTTAAATGA
AATTTAATTAGCACATATTGAACATTTGACTTAATTGTTAAACCCAGTTTTGTTTTGT
TTTTAATCAGATTTTTGCACACTGATTAGTTTTGTGTTGTGGCTTTTGTGCTTTATT
ATTCAAGGTTTTTTTTTTTTCTTCCCCTATGGGGGAGATTGTCTTCCAATGTTTAACTA
CGTTTAAATAAATAAAATTGAATTTTATTGNTCATTTATATAAAATCTGATCCTTGATG
TAATTTCCAATACAGTTCCAATTTTATGGCTTTATAATTACAATGATTTTTCTTCTATA
ATAAAAACCAAAGTAAACATTTAAATGGGGAACTGATATTTTCATTTATATGAAGTAT
NAAGCCCTCTACTGGGGTCNTTATTGGNGAATCATNCTGCCTTCAAANTGGTTTCAAAAN
TGGGTAGAAAAAAAACCTTTTTTTT

Sequence 1929

CCGCACACCCTAAAGAAAATAAGTATCCCAGTCGACATCAGTGACAGTGATATGATGCTG
AACATCATCAACAGCTCTATTACTACCAAAGCCATCAAGTCGGNGGTCATCTTTGGCTTG
CAACATTGCCCTGGATGCTNGTCAAGATGGTACAAGTTTGAGGAGAATGGTCGGAAAGAG
ATTGACATAAAAAAATATGCAAAGAGTGAAAAAGATACCTGGGAGGCAATCATTGGA
ANGACTTCCTGTGTCTTGCGTGGAGTCATGATTAACAAGGATGTGACCCATCCACGTATG
CGGCGCTATATCAAGAACCCTCGCATTGTGCTGCTAGGATTCTTCTGGAATACCAANG
AAAGGAGAAAGCCAGGACTGACATTTGAGATTACACGAGAGGAGGGACCTTACCCCGAA
TTCTCNCAGAAATGGAGNGAAGGAAGTACATCCCAGCAGCTNTGTGAGGGACCATTATCCC

TABLE 1

321/467

AACCTGGAAAGCCCGATGTTGGTCANTCACTTGGAAAA

Sequence 1930

TTTTTTTTTACAACCAAAAAAGAAATCTTTAATAAAAAATTACTCATAAAAAATCCTA
ATAAATTTTAAAGAGCAGNGATATTCCTTATTACATTTATAAAGAACATTTGGNCCTTT
TACAAAAAGATCCCTTTTAATTNAAATACNTTCTTATTTACAGATTAAACATAAAATAT
CATNTACAGTTGCAAAGCATATTGCACATTACAGAGCAAAGCATTNNGTATTTCCGNAA
GTTTTCCAGAGTTCCCAACTCTATACTTTTTTTGTAAAAAGATTTACCTTGCTTATG
CAAAAATAAAATAAGAAATGCNANCTGNCGGTTTTGCTATTTAAAAACTANAANCCAAAA
TAAACCTNTTAAAAATATTATTCCTCTGCCTTGCANAAAAGGAAAGTGAAGAGGGGTNTT
ANAAATCAGNGGGGGTTNCCACCAGNGTCNCTTGATAATTTT

Sequence 1931

CGTCCGGGGAAACTTTATATGGTTGGGGATAAGAATTGAATGCAAATTAATGAACTAGAT
TTGCATTTATGGAGTTACCTCATCATGGAGTTACCTTGGTCTGTCCCACGTCAATTAATC
TTGNTTCCTTATTTTCATAGACCATCCTCTAGAACAGTGTTTTCACTGTGTATCATGA
TCCTATAATGCAGGGGTGTCCAAGCTTTTGTCTTCCCTTGGCTACACTGGTNGAAGAATT
GTCTTGGGCCACACATAAAATATACTAACACTAATGATAGCTGATAAGCTAAACAAACAA
AAAAATCACAAAAATCTCATAATGTTTTTTGAGATTGTGCTGTTTTTTAGTTGTGTT
TTCATGGAGAAATAC

Sequence 1932

CGTCCGGCGCGTTTCGTGCGTCCTAGTTCAGTACATGCGTGAGGGTTTACGGCAGCGTG
TTCTGATTCTTTGCGGGACGGCGAGCGCATTTGTGCTTTGCCCGCCGCGGCCTANGAGGC
CTTTGAGGCCGCGTAGTCGGTGTTTTTGAAGTACTCTACAGCTTCTGGCAGGCCGTGC
GGCGCCCTGACCCGGCCTCACCATGTTGGTGCTGTTTGAACGCTCTGTGGTTACGCCAT
CTTTAAGGTTCTAAATGAGAAGAACTTCAAGAGGTTGATAGTTTATGGAAAGAATTTGA
AACTCCAGAGAAAGCAAACAAATAGTAAAGCTAAACATTTTGAGAAATTCAGGATAC
AGCAGAAGCATTAGCAGCATTACAGCTCTGATGGAGGGCAAATCAATAAGCAGCTGAA
AAAAGTTCTGAAGAAAATAGTAAAGAAAGCCCATGAACCGCTGGCAGTAGCTGATGCTAA
ACTAGGAGGGGTCATAAAGGAAA

Sequence 1933

AGGGAGCCGCCCGCGTCCGCCCGCGTCCGCGGACGCGTGGGCTAAAACCCATCAGGCA
AGATCACCACGCATTGANATATTTTCATATCAAGATAAAGTCGCACATTTTCCACAATAC
ATTGCTAAAATAAAGAGGAGAAAGGCTTAGGAAGTTTTTTGCAGAGAGTGCTGGTAAAG
AATTGAGCAAGTTTGCTATTGTATTGNAATGTTTCTCTCAGGTTTGNTCTTCTATCATG
GNNGGTATTCCATGAATAATTGAGATCAGCCCTATGTAAGGTAAGATCATAATATGGGGG
ACAAATGG

Sequence 1934

GCGGACGCGTGGGCTCCATCTGAGCTCTTGGGTGACCAGGGTGCAATTGTCAATGAGGGTA
ATATTTTGAAGACATCTTTATTATGAGCAGTAGGTCTCAACAGTGGGCTTAAATGTGC
AGTAAATCATGCTGTAAACAGATGTGTTGTATCCAGGTTTTGTGCCATGTCTAGAGCAC
AGGCTGAGTAGATTTAGCATAATTCTGAAGGACCCAGGATTTTCAAGATGATAAATGTG
CATTCGCTTCCACTTACAGTCACCAGCTGCATTAACCCCTAACAAGAATCAGCCTGTCCT
TTGTAGCTTTGGAGGCAGGCATGAACCTCTCCTAGATGGCATCTTCCAAGAGGGCTATTT
TTGTCTACATTGAAATTCTGCTTAGTGTAGCCACCTGCTTCAATGATCCTA

Sequence 1935

TNGACCACGCGTCCGGGCGCCNTCTCCAGCAATCAAGTCTTGCTCCCTGGCCTGCCCTC
CGGCACCCTGGAGCCCCGCTTTCCACACAGCCTTGCTCCTCCCGGCCTGGCTTGCTGCCT
GCAGGCCTCTCAGGGTCCTTCACCGTCTCTCCAGTCTCGGATCCGGACCCGTGGATCTCA
GCCTCAGACCCTCCTCTGGCCCCGGCCTTGCCCTCGGGCACGGCCCCCTTCTCTTCAGC
CCTGGGGTGCTGCTCCCCGAGCCAGAATATTGTCTCCTTGGAGGTCCCCAAAGAAGGAG
TCTCCCAAGATCTCCCAACGTTGGAGGGGAAGTCCAAGCCCAGGGGGAACCTTGACATACC
ACCAGGTACATGCCCCCAGAGCCGAGAAGGATNCGGGGGGCAAGACCCCCANGCCGTAGG

TABLE 1
322/467

NGTCTCCTCCCTTGGGTCTCCTGGGCCATCTCTGTGGGGAAGGGACAANACTCGCAACAA
NCCACATTCTAANGATGANGGCCCTTTNCCCT

Sequence 1936

CCNCGCGTCCGGAAAATATCCNAGGTTGTACGCAGCAGTGGAAGTTGCTCTCAAGGGAGT
GGTATTTTACACTATGCTCATGGCGACAGTCAGCAAACCTCACCTGTTGAAGCAAGGAAGA
AGCTCCATGGGCACTGGTCTCAGTGGTGGGAAACGTCCTAGTCAGGAAGAGGACACACAG
AGTATTGGTCTAAAGNCCAGAGACAGAGCACTAATTAGGTAAATATTTTAGAGCTGTAT
TTCTTGCTTTAGAAGAGTATATAATTAACATAAATTAAGATAATTTCAAAAATGGAGCAA
ATCTCTATTTTCAAACCAGAAAATCTTGAGGCATTAATTTTAAGCAATTTTACAAACT
CAGTTAATTTTGGTCAAGAGACATGCATCTGTACTGGAGAAATTGTTGCACCAAGTTTT
ATATTCATCTGAACCAATGC

Sequence 1937

CCCCGCGTCCGCCCTTTNCTCCCTGAGGACTCCACAGAAGATGGTATATTATGGGAAAC
CTTCTTGTAACAACTATGAGAATTATATTGACATAGTGAAATATGTGTTTCAGCGCTT
ACAAGAGAGAGTCCCCTCTCATCGTCAACACTATGGGATGGGTTTCAGACCAGGGGCTCC
TGCTTCTCATTGATCTGATCCGATTGCTGTCTCCAGCCACGTGGTTTCAGTTCCGCTCTG
ACCACAGTAAATATATGCCAGACCTTACCCCGCAGTATGTAGATGACATGGATGGCTTGT
ACACAAAAGCAAGACCAAGATGAGAAATCGACGTTTCAGACTCGCAGCATTTGCAGATG
CTTTGGAATTTGCTGATGAAGAAAAGAGAGTCCAGTTGAGTTCACTGGACATAAACTGA
TAGGTGTTTATACAAGACTTTGCATTGAGAATAACTCCAAGAAATAGGTAACATAACCTC
ATTTGGCTGAAGAATTATTTTCTTCCGTGCAAAAAGACCTGCCATTCTCA

Sequence 1938

GTCGACCCACGCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCTCTCGC
ACTCTGTTCTTCCGCCGCTCCGCCGTCGCGTTTCTCTGCCGGTCGCAATGGNAGAAGAGA
TCGCCGCGCTGGTCATTGACAATGGCTCC

Sequence 1939

ACCACGCGTCCGGGCGCCAGGCTAGGGCGGCCTGGCCACTGAGCCGGGGTGCAGTGGCAG
CGGGAGAGTACCTGGCGATGGCGATATGAGCGGTGCGGGGGTGGCGGCTGGGACGCGGCC
CCCCAGCTCGCCGACCCCGGGCTCTCGGCGCCGGCGCCAGCGCCCCTCTGTGGGCGTCCA
GTCCTTGAGGCGCAGAGCCCCGAGCTCAGGCAGAGCGACCCGCAGAAACGGAACCTGGA
CCTGGAGAAAAGCCTGCAGTTCCTGCAGCAGCAGCACTCGGAGATGCTGGCCAAGCTCCA
TGAGGAGATCGAGCATCTGAAGCGGGAAAACAAGGGTGAGCCGGCGCGGGGCCCTAGGCC
GGCCCTGCCTCCCCAGGCACACTCAACACTGCCGCTCCCGCAGCACAGAAACACAGCCAT
TCAACTCCAGCACACGCCTGGGCTCAGGGGGAACACAGGACGATCTCCATTACAAGCTCA
TAATGAATCAGACATCACAGAAGAA

Sequence 1940

CGCGTCCGTGAAGGCCAGACCGAGAGGTGCCAGAAGAGAAACAACTCCATCCAGACACG
CGGGCGGAAAGGCTCCAGGGGTCCAGGGCCAGATGGCGCCGCTCTGCCCGACTCAGAAA
GAGAGAAACAAGAGCCGGAGCAGGGAGAGGTTGGGAAGAGGCCTNGACAGGCCCCANGCC
TTTGGAGGAGGCGGGTGATCTTCTGAAGATCCCCAGAAAGTTCCAGAAGCAGATGGTCA
GCCAGCTGTCCAGCCTGCAAAGGAGGACCTGGGGCCAGGAGACAGGGGCCTGCATCCTCG
GCCCCAGGCAGTGCTGTCTGAGCAGCANAACGGCTTGGCGGTGGGTGGAGGGGAAAAGG
CCAAGGGGGGACCGCCGCGCAGGCAACTCCGCCGNGACACAGGGCAGCCCGCANAGGACA
GCNACCACGTGGGGAAGCCTTCCCTCCAGCGGAGAAGCCGGCTTCAGG

Sequence 1941

CCGCGTCCGCAGAAACATATGTGTAGTGTGCTGCAGCATAAGATGGAAGAACTTAAAGAA
GGCCTGCGGCAAAGAGATGAGCTTATTGAGAAACATGGCTTAGTTATAATCCCCGATGGC
ACTCCCAATGGTGATGTCAGTCATGAACCACTGGCTGGAGCCATCACTGNTGTGTCTCAA
GGAAGCTGCTCAGGTCTTGAGTCAGCAGGAGAAGGGCCATTAGATGTAAGGCTACGAAA
ACTTGCTGGAGAGAAGGAAGAACTACTGTACAGATTAGAAAAGCTGAAGCTTCAGTTAGA
GGAGGAACGACAGAAATGCTCCAGGAATGATGGCACAGTGGGTGACCTGGCAGGACTGCA

TABLE 1

323/467

GAATGGCTCAGACTTGCAGTTCATCGAAATGCAGAGAGATGCCAATAGACAAATTAGCCG
AATACCAATTT

Sequence 1942

CCGCGTCCGCTCGCCTGCCCCGGTGCACCCAGTCCGCTCAGCCAGCCAGTCCGTCGGT
CCTCACCGCCTGCCGGCCGCCACCCCCACCCGCAGCCATGGACGCCATCAAGAAGAA
GATGCAGATGCTGAAGCTGGACAAGGAGAACGCCATCGACCGGCCNAGNNAGGGCCGAA
TCCGACANGAAGCAANGCNTGAGGACCGCTTGCAAGCANGCTGGAGGAGGAGCAGCAGGC
CCTCCAGAAGAAGCTGAAGGGGACAGAGGATGAGGTGGAAAAGTATTCTGAATCCGTGAA
GGAGGCCCAGGAGAACTGGAGCAGGCCGAGAAGAAGGCCACTGATGCTGAGGCAGATGT
GGCCTCCCTTNACCGCCGATTAGCTGGTTTGAGGAGGAGCTGGACCGGGCCCAAGGANC
GCCTGGCTACAAGNCCTGCANAACTTGTANGANGCCNNNNAANGCCGGCCTNATNATTN
GCCNNGAAGAGGGAATTNAAANGTTNTTNNAAAAACC

Sequence 1943

GTCCGCTTAGTTTCTGCATTATNAGTNAGCATAAATAATAAATCCAGAAAACGTGCTGTA
TTTGTTGTTGTTTCCCTCCATGGGCTTTCCCGCCATCTAATTTGATATAGACTTCATCTCC
CGGCTCCAAATGAAGAACCACACTGTTACTGGCATAGTCGTAATTCTGATCAGCATCTTG
GGCAATTGCACTAGCACGCACCTACGTGAAACAGACAAGAATTAGGATGCGTAAATGAGA
ATTCTCAAGTTTTCTTTTTGCCATTTCATGTAGCATCACAAAGCTGACTTGCTGCCATAGT
ACAGAATTTAGCATAGCAAAG

Sequence 1944

GCGTCCGGCTCGCGGCGGTGCGGGCTCCGGGCGCGGGCGGCGGCCATCTTGTGCCCGG
GGCCGGTGGGGAGGCCGGGAGGGGGCCCCGGGGGGCGCAGGGGACTACGGGAACGGCCT
GGAGTCTGAGGAACTGGAGCCTGAGGAGCCCCCGGCAGCCAAGAGGAGGAGGAGGCCG
GGACTGGTTCGAGGGTGACCCGGGGGACGGCGCCATTGAGGACCCGGAGCTGGAAGCTATC
AAAGCTCGAGTCAGGGAGATGGAGGAAGAAGCTGAGAAGCTAAAGGAGCTACAGAACGAG
GTAGAGAAGCAGATGAATATGAGTCCACCTCCAGGCAATGCTGGCCCGGTGATCATGTCC
ATTGAGGAGAAGATGGAGGCTGATGCCCGTTCCATCTATGTTGGCAATGTGGACTATGGT
GCAACAGCAGAAGAGCTGGA

Sequence 1945

CCCACGCGTCCGGCAAACCGGGAAGGAGAGGATCCCGGAGCCGGTGAGAATTCTCTGTT
TTTTCTCTACCATCCTTTCCAGGCCTTTTCCCTCACCTAATGAGTCGTAGAGACGAGGGCC
CAAAAAGTCTGTAAAGGTGGCTGGTGAAAGATTAAGTGNTCCAAGGGCCCTACATTCNG
GANGNGGTTCCGGGATAAAAGAGAACTAGTCNTGGGAACAATGTAAGTGGGAACNTNAAGG
NANNGGNAAAGCGGCCNATAAAGGNNGNCGGAGGNCCCAATGGNANTAAAGCGGACCCTG
TGTAGGTATAGAGTTGAGTCAAGTGGAGTCACTGCCTCTTGCCCTCTTGGTCAGCGTGA
TGGCCAGAGGCCTGGGGGCCCCCCCACTGGGTGGGCCGTGGGGACTGCTGANCTGGGCCN
ACTTGG

Sequence 1946

ACGCGTCCGGCCGGGAGTGGTGGTGGGCACCTGTAATCCAGTTACTCGGGAGGCTGAGG
CAAGAGAATCTCTTGAGCTCAGGAGGCAGAGGTTGCAGTGAGCTGAGATTGCGCCACTGC
ACTCCAGCCTGGGTGACAGAGGGAGACTCCGTCCAAAAAAGAAAAAGAGAAACAGCT
GTCACCTCCCGCAGGACCCAAATCCTCTCTGAGCACCGTCATCCACCACATGGCTNGG
CCTNGNTTCCAAGANCNAGTCNANCCTTTNNNGNCTTANTTNNAGGTNGANNCCGCNNNT
TTCNNCCCAAAGGAGACAGCCCTGCTCCTAGATGCCCTTGGCCTCCGCAGTGCAGCCCC
CAGGTGTCCTGACTGAAGCANAGGCCNTAGCCCCAT

Sequence 1947

NCGCGTCCGAAGTGGATGAAAATTGGTACCATGGGGAAGTCAATGGAATCCATGGCTTTT
TCCCCACCAACTTTGTGCAGATTATTAACCGTTACCTCAGCCCCACCTCAGTGCAAAG
CACTTTATGACTTTGAAGTGAAAGACAAGGAAGCAGACAAAGATTGCCTTCCATTTGCAA
AGGATGATGTTCTGACTGTGATCCGAAGAGTGGATGAAAACCTGGGCTGAAGGAATGCTGG
CAGACAAAATAGGAATATTTCCAATTTTCATATGTTGAGTTAACTCGGCTGCTAAGCAGC

TABLE 1
324/467

TGATAGAATGGGATAAGCCTCCTGTGCCAGGAGTTGATGCTGGAGAATGTTCTCGGCAG
CAGCCCAGAGCAGCACTGCCCCAAAGCACTCCGACACCAAGAAGAACACCA

Sequence 1948

CGCGTCCGAGTATTTGAAGTGATGCTGGCTCAGACCGCTCCCACTATGCAAAATGTAACC
CATACATGGATTCTCCACAATCAATAGGTTTTGCTGAACTGCTGAGCCTTGGCAGTGGGC
GCCTTTGAGGCTTAGAAGTGCCNNAAGNNTCTNNCANNNGNTNNCATGCTTTNTTTTT
TGNCGCACTNTTANCAGTCANCAANAAATCCNGGGNGNTNNTNANCCCCNAAGGCNC
NNGNTNCCACNGTTCAGTGAACTTGCTTCAGAGGCAGAAAGAAGCAGGTTTCCAAGCAA
CAATCAGTGCTCCACACATGCATGCATATGCGCTAGAACTTCTATTTGATCAGTTGCATG
AAGGAGCTAAAGCTCTTGATGTAGGATCTGGGAAGTGAATC

Sequence 1949

CCACGCGTCCGGAGAGAATGGGCCGCGCGCGCCCGCGGGGAAAGCCTGTCGGGAAC
CCGGGAGAGCCTGGCCCAGGGCCCGACGCCGAACACCGACGAACTCAGCTCTCTCGG
GTCTGACTCGGAGGCCAACGGCTTCGCCGAGCGCCGCATCGACAAGTTCGGCTTCATCGT
GGGCTCGCAGGGCGCCGAGGGCGCGCTGGAGGAAGTACCCCTGGAGGTGCTGAGGCAGAG
GGAGTCCAAGTGGCTGGACATGCTCAACAACCTGGGACAAATGGATGGCCAAGAAGCACAA
AAAGATTGCTCTGCGGTGCCAAAAGGGCATCCGCCTTCTCTGCGGGGCCGTGCTTGCA
GTACCTGTGAGGAGGCAAGGTGAAGTTACAGCAGAACCCTGGAAAGTTTGACGAGCTGGA
CATGTCCCCTGGGGACCCCAAGTGNTTGGACGTGATGGAACCGTGACCTGCNCCGGCAGT
TNCCATTCATGAAGAGTTTTTGTGTCCGGGGGGG

Sequence 1950

NGCGTCCGGCTTTACAACGGGCAAATACTGGAAACCATCGGAGGCAAACAGCTCANAGTC
TTCGTATATCGTACAGCTGTCTGCATTGAAAATTCATGCATGGNGAAAGGGAGTAAGCAA
GGGAGAAACGGTGCGATTACATATACCGCGAGATCATCAAGCCAGCNNANAAATCCCTC
CATNGAAAAGTTAAAACAAGGATAAGCGCTTTAGCACCTTTCTCAGCCTNCTTGAAGCTT
GCANAACCTGAAAAGAAGCTTCCTGACACAACNCTGGAGACTGGGACATTATTTGTGCCA
ACCAAATNGATGCTTTTAAAGGGGAATGACCTAGTTGAANNAAAAAAGGAAATTTCTTGA
TACNGGGACCAAAAAAATGGCTCNTTTCAAAAAACAATTCCATTTCTTTATTTNACCCC
TGGACCACCCCAAGGGAAGTTTTTTCAATTTGGGGAAAAAAGNGGAATTTTTGG

Sequence 1951

CAATNCTTGAACCAGGAAGGCGGAGGTTGTCGGGGGCTGAGATTGCACCACTGTGCTCCA
GCCTGGGCGACAGAGGGAGTCCCTTTCTCAAAAAATAATAATAAAATAAAGATGGCAG
TAGGAAGGTTTCAGCTTGAGATGCTGTCTTTCTCTGTTTTATGCATAAATACAACGA
AGACGGGAGAGGAGATGGAAGCAAAGATGATTAAAGTGAATAATTGTGGGAAACAATAG
AGGGATAGACTTTGCTTATAGGGGATGTGGACAGAGCAGAAAAATGGGAGGAATGGGGAG
GATTCAGTTAGAGAAGGAAGAAACCGGTCCAAGGGGCTGGGGCTTTAGGCCCTGGGGCCT
CCAGTGCCCGTATAAGGCTGTGGCAGAAGCCCTGCCATTTCCGTTCTTTCACTCCCTA
TN TTCACCTTACACCTCCCAAAAC

Sequence 1952

CCGCGTCCGGGTTTTTGGCCTTATTTTCTGGCTTTTCTCTCCAACTTTGAGGCGT
GATTTCAATTCATTGAAGATCAATACATATTTTGTTCAAAATGTTTGAAACAAAAGACA
TAGATGGTAGACTTTTATTAACATATATGGATGTGGAAGCACATATTAATGCAGT
CATCCCTTTTCAGGTGGGAAGAGAGCAAACAGTTGATTTTTTAATTCATCCTTAGTACA
CAGAGAATATCTTTNCTCAAGGAATATACCCTGGTTGGAGCTTTAAAAAAGAATGGTTT
TGGGAACCATTTTCATTTTTCCCAANAAGGTTGCTATTCTTGGGGTAANTGGGGNATACCN
GANTGNTTTTTCCNGGGGGGTTTTGGTGGTGGGGGTAAAATTGGGGNTTTTTTTTT

Sequence 1953

GCGCCGAGGGGTGTAATGCATTNGCAGCAAGAGCTATGAGAAATAACTTTAGACATTATT
TCATTGAACCTTCCCAACTGAAATTATTTTATGATGTTATAACATGGATAGTAACCTCAAG
TAGCAATAAGTTACACAGTTGTGCCATTTGTGCTTCTTTCTATAAAACCATCACTCACGT
TTTACAGCTCCTGGTATTATTGCCTGCACATTCTTGGTATCTTAGTATTATTGTTGTTGC

TABLE 1
325/467

CAGTGAAAAAACTCAAAGAAGAAAGAATACACATGAAAACATTCAGCTCTCACAATCCA
AAAAGTTTGATGAAGGAGAAAAATCTTTGGGACAGAACAGTTTTTTTACAACAAACAATG
TTTGCAATCAGAATCAAGAAATAGCCTCGAGACATTCATCACTAAAGCAGTGATCGGGAA
GGCTCTGAGGGCTGTTTTTTTTTTGATGTTAACAGAAACCAATCTTAGCACCTTTTCAA
GGGTTTGAGTTT

Sequence 1954

TCGCCCCGCGTCCGGTTAAACTGCCTCTTTAGATGTGGATGCCTTAATGCTGTAACACA
TTTGAAAACATTGGCAATACTTAAGTTGCTGCCATGATTACAGATGGAATTATTGGCTAC
CAAAGAGACGCAATTGATGATGAGAAGCATGATTCTTGCTTCCATATAACCAAAGTTAAT
CTTAATTGCAATTTGACTCCGTTTCCTTGGTAGGGATAGACTTTCTTCAGATTCCAAGTG
CTCTCTTAAATGGCAAATTAAGTTAAGAATACTACTGCTCCATTCCCCTCACTTATTCT
CCAGTTAATTGCTTGTGAGTTCCATTTCAAGAAAGCAGTGGATGTTCCAGGTTTGATTCA
GTTTTCTGTGCACACTATTGCCAAATTTTTTTTAGCAAAGATTCTGCACTGGAACGTA
GACAGTTGGAACAGTACTACCTACTAGAGGGTATGGGGTTTCTTTCTCCCCGCTTTC
ACCTCTTCTTTTCCAATTC

Sequence 1955

CCNCGCGTCCGGCTCTGCCAGTCACCCGGTCTCCTCCGGCTTCCCTCCGGCCAACAGCG
CGCTCAGGCTCGCCTCAGGCCCTCCAACGGAACAGGAGTCGAGGGGCAGTGAGGCCGGG
ATGCGTGCGAGCGCGGGGCGCGGCTGGCGCTGGGCCGTGGGGGCGGGGCGGCGTGCGTGC
CAGCGGCCGTGCGATTCTGTGAGGCCTGCTCTGCGCCGGCGGGGAAGCGCGGGCGACGCT
ACGCTGGACGTCTTACCTGCCGGAGGAGAGAAAGTGCCGTCAGCTGTAGGGG

Sequence 1956

GCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGAC
GCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGAGAATGTGCTATACCCC
AGAAATTCATCGATCTGTCATGGGCCCAAAGGTTCCAGAATCCAGCAGATTACTCGGG
ATTTAGTGTTCAAATTAATTTCCAGACAGAGAGGAGAACGCAGTTCACAGTACAGAGC
CAGTTGTCCAGGAGAATGGGGACGAAGCTGGGGAGGGGAGAGAGGCTAAAGATTGTGACC
CCGGCTCTNCAAGGAGGTGTGACATCATCATCTCTGGCCGGAAGAAAAGTGTGAGG

Sequence 1957

CCACGCGTCCGCTGGAGGCACTGGACGAGATGCTGACGCACGACATCGCCAAGCTCATGC
CCCTGCTGCGGCAGGAGGAGCTGGAGAGCACCGAGGTGGGCGTGACAGGGGGGCGCTTTTG
AGGGCACCCACATGGGCCCGTTTGTGGAGCGGGGACCTGACGAGGCCATGGAGGACGGCG
AGGAGGGCTCGGACGACGAGGCCGAGTGGGTGGTGACCAAGGACAAGTCCAAATACGACG
AGATCTTCTACAACCTGGCGCCTGCCGACGGCAAGCTGAGCGGCTCCAAGGCCAAGACCT
GGATGGTGGGGACCAAGCTCCCCAACTCAGTGCTGGGGCGCATCTGGAAGCTCAGCGATG
TGGACCGCGACGGCATGCTGGATGATGAAGAGTTCGCGCTGGCCAGCCACCTCATCGAGG
CCAAGCTGGAAGGCCACGGGCTGCCCCCAACCTGCCCCGTNGCCTGGTGCCACCCTCCA
AGCGACGCCACAAGGGCTCCGNCGAGTGAGCCGGGGCCCCCTT

Sequence 1958

ACGCGTCCGCTGGCTAACATGGCCGAAAGGTCGTATTCTCCGGGGGAGGACGGAGGGCCC
GGAGAGGAGGGGGTGGAGTGCTGTTTCCAGTCAGGCGGGCCGGAGGGCAGCCCTCAAG
AACGGCCCTGACCGCCCGCGGGGTGAGGGGCCCTTTCTGGGCAGGACCCGCCCTTGCTC
CCGACAGACCTTGGTACTTGGACCTGAACCTTGCTCCGAGAGGGAGTCTCGCGGACGTC
AGCCAAGATTCCAGAATGACTACTATCTTGACTTACCCCTTTAAAATCTTCCCACTGCA
TCAAAATGGGCCCTCAGATTTTCCATAAGACCTCTGAGCTGTTCTCCAGCTACGAGCT
GCCCCAGCTGTCCAGACCAAAACGAAGAAGACGTTAGCCAAACCCAATATAAGGAATGTT
GTGGTGGTGGATGGTGTGCACTCCATTTTGTGTCTGGCACTTCATATAAAGACCTG
ATGCCACATGATT

Sequence 1959

CCACGCGTCCGGGGGACATGGTGGTGAGCAGGACAGAATTCCTGTCTCATGAGTCTTAC

TABLE 1
326/467

ATTCTAGAAGGAAGGAGCAGATAAAATCTAAATAAGGTTATGAGATTGTGACGAAGCGTC
CGATTACACCTCAACAAGAAGGCAACTGACAAACAGCCTTATAGCAAGCTCCCAGGTGTC
TCTCTTCTGAAACCACTGAAAGGGGTAGATCCTAACTTAATCAACAACCTGGAAACATTC
TTTGAATTGGATTATCCCAAACCTTTATTTTCTTCGGTAGCACCAATGAAAAGA

Sequence 1960

TCCGGTGCAGCCGGGCTAGCTTCTCCTGCATCTCCCGAACGTGCTCCAGCTGCTCAAAGG
AGCNTTCTTCCCTGGAACGAANCCCTGNCTGAACCCTNNNAAAGAGNCCTGGAACCCT
GGAACCCTGGAACCATGGNCCCAGCCNTNCCCCANGNACTGGGCCCTACAGCCCTATCCA
CACACCCGCTGAAACCAGCCCCCAGGACTCACCGAAGGCCNNGGGGGCGGCCAGAGTGGA
ATCATTGAGCAGGTTGAGGAGTCCCCCTCCATCTNATAGACATCAGTCACCTCGGTGAG
GAAGGAGTGCTGCAGGGGCGTGCTGCAGAGCCGCTTCCACCTCCAGCCAGGACT

Sequence 1961

NGNCGCGGTTCTCGTCTCCTCCCGGCCGGCGGAGCGAGTGAGGCTGCAGCCCAGCTCGT
CTCGGCGCCCGCTCGCCGTCNCGAAGCCCCCGCCCGCTTCCGCCGCTCGGAATGAG
CTCCCGGAAAGTGCTGGCCATTGAGGCCNAAAGCGGAGGCCGAAAAGAGAGAAACATCC
GAAAAAAATCAAGCAGAAGATTGAGCTGCTGATGTCAGTTAACTCTGAGAAGTCGTCT
CTTCAGAAAGGCCGGAGCCTCAACAGAAAGCTCCTTTAGTTCTCCTCCTCCACCGCCAC
CACCACCACCGCCACCTTTGCCAGACCCACACCCCCGGAGCC

Sequence 1962

CGCCACGCGTCCNNCCCGCGTCCGGGAGAAGATGGAAGCAGTGCCCGACGTAGAGCGCA
AGGAGGACAAGCCCGAGGGGCAGTCACCTGTGAAGGCTGAGTGGCCCAGCGAAACCCCGG
TGCTGTGCCAGCAGTGTGGCGGCAAGCCTGGCGTCACCTTCACCAAGTGCCAAGGGCGAGG
TCTTCTCCGTAAGTGTGACCCCTCAAATCATTCTTTAAGAAAATTGAGTTCCAGC
CTCCAGAAGCCAAGAAGTTCTTCAGCACAGTGCGGAAGGAGATGGCGCTGCTGGCTACCT
CACTGCCTGAGGGCATCATGGTCAAGACTTTGAAGATAGAATGGACCTCTTCTCAGCTC
T

Sequence 1963

TCCGCGGNGCGTGCGGCCGCACTCATTTGCATTATCTTAAATCACAAATAATTACTTAA
TTNGCTGGAGTGTGTGCTTTGCACTTTTATACCAGAGTAAAATTTGTATTTAAACAAA
AAATAAGAATGCCCATCACTAGGAGAAACACTCCTCACAGAAAACACACACACACACA
CACACACAATTTAAAACTGAGTAAATTTAAATGTATGAAAGGCNCCACAAATTGATTC
AACAAATAAATTTCAATTTCTAGCTACTTATGTCTGGCCTTATTTTGAGCGTTACAATT
TTATTGCCTTCATTTGCCTATTTAGACTGATGTAGTTTGATATGATGAAGT

Sequence 1964

CTNTAGGGAGNCGACCCACGCGTCCGCCCCGCGTCCGGTTAGTTCTACCTGGTGCCCATG
TTCTGATTGTGTGTGGGATTGCATGGTGTCTGATTGCATCTAGGTGGAGCGGATGGAAT
GTGCTGGGCCACTGTTGGGTGGAGAGCAGCACATTCTACAGAGGAGATGGAGCGTTATG
AGCATAGTATGTGGATAGGTATCTTCACCTGCCCGCCCTGAGTCAGCCTCCTTGACTTG
ATAGCTTGAAGAATCCTTTTCCACTGAAATAGAGGATAATTAATTGACACATCTGAAATC
CCCAATCAATCAATCAAGAGAAAGGTAGAATAAACTCCTTAACTTACTGTTGCTTAC
ACCCCTGAAAGTCTGTTTTT

Sequence 1965

CGTCCGGCGCCCTCCAGCCCCGTCCGGGAGTCCCCGGCCCGCTGCGGTGCCGGGAGTACC
TCCAACCCCTGCNCCCCNNANGGAGGCCNAGGGGCTTAGCCACCAGGGCTCGGAAGTGG
GGGCCGAATCCGGTGCNNGNCNNNNNNNAGGNNAGCANAGCCGGAGTTGGGGAGACTGGT
TGCTGAAAAGCCAGGAGTCAAAATGACTGAGCGCTTTGACTGCCACCATTGCAACGAATC
TCTCTTGGCAAGAAGTACATCCTGCGGGAGGAGAGCCCTACTGCGTGGTGTGCTTTGA
GACCCTGTTGCCAACACCTGCGAGGAGTGTGGGAAGCC

Sequence 1966

CCCACGCGTCCGGTGCACCTCAACAGAACGGCCCTTCAAATGTGAGAAATGTGAGGCAGCT
TTCGCCACGAAGGATCGGCTGCGGGCGCACACAGNACGACACGAGGAGAAAGTGCCATGT

TABLE 1

327/467

CACGTGTGTGGCAAGATGCTGAGCTCGGCTTATATNNNNGACCACATGAAGGTGCACAGC
CAGGGTCCTCACCATGTCTGTGAGCTCTGCAACAAAGGCTTCACCACGGCAGCATACTG
CGCATCCACGCGGTGAAGGACCACGGGCTCCAGGCCCCGCGGGCTGACCGCATCCTGTGC
AAGCTGTGCAGCTGCAAGACCCCTGCCAGCTGGCCGGCCACATGCAGA

Sequence 1967

CGNCCCACGCGTCCGGCGGTGCCGCGGGGATGGCGGGAGCCGGAGCTGGAGCCGGAGCTC
GCGGCGGAGCGGGGGCGGGGTCNAGGCTCGAGCTCGCGATCCACCGCCCGCGCACCCGCG
CACATCCTCGCCACCCTCGGCCTGCGGCTCAGCCCTNNNNCCNNNNNANNNATGGCNNGN
TCAGGGGGCCTGGGGTCTGGGGACAACGCCCGACCACTGAGGCTCTTTTCGTGGCACTG
GGCGCGGGCGTGACGGCGCTCAGCCATCCCCTGCTCTACGTGAAGCTGCTCATCCAGGTG
GGTCATGAGCCGATGCCCCCACCCTTGGGACCAATGTGCTGGGGAGGAAGGTCCTCTAT
CTG

Sequence 1968

GCGTCCGGGCGTGTAACCAGCCGGAGCGGGCGGCGGAGCGGCAAGGACCGCCGTGGCGCC
TAGAGTAGCCGACCCGGGGGAGCGCGGGGCGACGCTGGCTGCAGGGACCCGGTGACAGC
GTGAGAGGTTGCGAGAGTACTAGGTTTTGACAAGCTTGCATCATGCGTGAGTATAAGCTA
GTCGTTCTTGGCTCAGGAGGCGTTGGAAAGTCTGCTTTGACTGTACAATTTGTTCAAGGA
ATTTTGTAGAAAAATACGATCCTACCGATAGAAGATTCTTATAGAAAGCAAGTTGAAGT
AGATGCACAACAGTGTATGCTTGAAATCTTGGATACTGCAGGAACGGAGCAATTTACAGC
AATGAGGGGATTTATACATGAAAAATGGACAGGGATTTGCATTAGNTTATTTCAATTNCAN
GCCCANCCCCAATTTTACGTTTAAAAAACCTGNNNNAAAAAAATTTTTTGGNTAAAAAN
CCNTNTTGTNTCCCCAAAANTTTTTTGGGGNAAAAAANNGCCCTCCNAAAAA

Sequence 1969

CCCACGCGTCCGCACGCCAGTGCCCTCCCTTTACCTACTAATGAGGCAAACTTTGAGATT
GGGAATAACTTTGCCAGGGTTAAATGCAGGTAACAATGTCATATCCTCCTTGGTGGGC
ACATCTNANAATTTTAAATGAAGAATTCTTAAGACNGTCTTTCTAAANNACTATTTNGTAC
ATTATGCTTGAAGAANATNTGNGAATTGAGGGAAACA

Sequence 1970

GCGTCCGGTTTTCCAACTGCAGCTTTTTAATGGTTAACCTTCATCTAATTTTTTTCTCC
CACTGGTTTATAGATCCTCTGACTTGTGTGTGTTATAGCTTTTGTTCGCGGGGTTGTG
GTGAGGAAGGGGTGATGGCATGCGGAGTTCTTTATCTTCAGTGAGAAANNGGCCCTGCCCG
CCTGAGAGCCAGCTTNCGCGTTGGAGGCACCGNGTTCAGAGAGCTGCTGAGCGCCACCCT
CTACCCNGCTGACAGACAACACAGACCTGTGCCGAAGGCTAANTTGNGGCTTTTACGAC
CCTACCCACCCCTGTTTTCAGGGGTT

Sequence 1971

CGTCCGGTGAGATTCTCCGTAATGGGCGGGGACAGAGTGCCCTGCAGGAGATTCTGGGCA
AGGTTATCCAGGATGTGCTAGAAGACAAAGTGCTCAGCGTCCACACAGACCCTGTCCACC
TCTATAAGAACTGGATCAACCAGACTGAGGCCAGACAGGGCAAGCGCAGCCATCTCCCA
TATGATGTACCCCCGAGCAGGCCTTGAGCCACCCCGAGGTCCAGAGACGACTGGACATC
GCCCTACGCAACCTCCTCGCCATGACTGATAAGTTCCTTTAGCCATCACCTCATCTGTG
GACCAAATTCGATATGGGATGCGATATGTGGCAAAGTCTGAAGGCAACTCTGGCAGAG
AAATTCCTGACGCCACAGACAGCGAGGTCTATAAGGGTGGTCGGGAACCTTCTGTACT
ACCGCTTCTGAACCACTTGTGGTGGCTCCTGACGCCCTTACATTGTGGCCATGGCAANC
TGGTGGAGCCCTGGCTGCCCCCAGCGCCATGCCCTGGG

Sequence 1972

GAGGGGAGGGAAATTTATTTCTCTGCTTTTCTATTATACAAGTTGTTTACAGAACTGCA
AATTAATAAATTACACTGGCATTGTCAGTCCTTAAATAAATTAAGTTCTCAACTTTT
TTTTTTTGTCTAAACATTTTTTTAAGTATGAGTCCTTTGTTTAAAAAGAAANAGATTANA
ACAGAAAATATTTTCTATAAATAATACATGTATTTGGTTTTAGTGCTCCCGCCC

Sequence 1973

TABLE 1

328/467

GCCGACCCACGCGTCCGACATCCCCAGGCACATCCGGAAGGAGGAAGGTTCTTTTCAGTC
CTGCTCCTTCTGCANGNCCAAGAAATTCACCTACCATGATGGTCACACTCAACTGCCCTGA
ACTACAGCCACCTACCAAGAAGAAGAGAGTCACACGTGTGAAGCAGTGTGCTTGCATATC
CATCGATTTGGATTAAGCCAAATCCAGGTGCACCCAGCATGTCCTAGGAATGCAGCCNCA
GGAAGTCCCAGACCTAAAACAACCAGATTCTTACTTGGCTTAAACCTAGAGGCCAGAAGA
ACCCCCAGCTGCCTCCTGGCAGGAGCCTGCTTGTGCGTAGTTGCTGTGCATGAGTGTGGA
TGGGTGCCTGTGGG

Sequence 1974

CGCGTCCGCCGAGAGAAGAGGTACGGTCAAGCCCGGAGCCAGGCCGAGCGGGAGCTGAC
CAGGCTTGACTCGGGTACAGAACGAGGCACCAGTCCCCTTGCGAACCGAAGGGCCTCGCA
GTGGATGGAGGAGGCCAGCCCTGAGGTCAACGCCAACCAGGCTAGCCTGGCACGGGGGCC
TACAGGGTGGGTAGGCGGGCGTGCCGCAGCCGTCCAGGGCCTTCCCTCAGGTCCCGGGCC
GAGGGGCCTACGCTGCGGCCCGGCAACAAGGCCCGACTCGGCCCTCGGGACCAGAGCCC
CACCCGATCGGAAGCGGATC

Sequence 1975

GGCCTCAGGGGGNAGNNATCCTGCAAAGACNNACATGAGCCCANAGGGGAAANAGAGNCA
CCTGNGAGTACNNGCCTTGGGNNTGACCTTGGCTCTCAGCACAAAGATATTTACAGCCTN
TGAGCTTGATATTCTAGAATTGNTACAGAGATAGCTCTGGAAGAAATAGACTAGAAGG
ATAAAGGGAAGGAATCATAGCTTATGAAGGTTTTACTCTGCATCAGACCGNTTTTCTAGN
NCTATGACTTAAAGTCCCTATAGGCTGTAAGGTTCTCTGCGTGAACACTTCTTNTCTGGCC
TCCCTTCTGCCCATTCCTNTTTAACTCAGTTGCTGAGTTTATTATNCCCTGTGCATCC
CTGGGCATTGNTCATTACATATGGAAACAATTCANGGAGGACCCTTGCCTANTTTNCT
TTATCCTCTGAATTNTGGATGGGAAAAATNTAANTNCTTTTGGCCGCTGCANTNGGG
GNAANTATTGGGCCTT

Sequence 1976

CGCCCCGCGTCCGCGTTGAACAGCTTTAAGAACAATGTGAATGAAATCTTAGCAACTTGG
TTAGTAATCTGAAAAGTCTATTAATGTATACTTGAAATTCTGTTGTATAAAATGCATT
TTCCCTTTATTTTAACACTGTGTAAGAAGAACATTATGCATGTGAGTGGTTTGAGAATTA
AATGGTTTAATACTCAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANGGGGNGNCCNTTANNNTNNTTNAAAA
AAAAACCCCCNNNCCNCCCCCTGNACCCGNAANNAAAAANNANNCNTNNGGGGGGGGA
ANCCTNNTTNTTGNCCCTTAANAGGGGNCCCCAAAAANCNATTNCCNCCCNANTTTCNNN
AAAAANNCTTTTTTCCCNNTTNNAAAGNNGGGGGGNGGCCCANCCCCANAAGGGGTT
TTTNAAGGGGGGNAACCCCNNGGTCCCCGNCCCCAAAAAAA

Sequence 1977

CGCCNCGCGTCCGGGCTGCCGTAACAATCGCCACAAACCTGGTGACTTAAATAACAAATA
TTTATTTTCTCGTAGCTCTGGAAGCCGGAAGTCCAAAACCAATAACTTGGCAGGGCTGTG
CTCCCTCTGGGAGATCTCGGGGAGCCTCCTTGCTACATGTTCCGCTTCTGGGGACTTCTG
GTGGTGTTCCTGGAGGGCCAAGGCCTCGGGGCGGCCCGTGCAATCGGTGAACACCTCC
AAAGAGCTCTGAGTCACAAAGCCTTGGGAACTTTATTTTATTCTTTCTAGGACATTATC
AGTAGTCCCGAGGAGACATCAATTACAAAACAAAAAAAAAAAAAAAAAAAAA

Sequence 1978

CGTCCCAGACAGTCAGCCGCATCTTCTTTTGGCTCGCCAGCCGAGCCACATCGCTGAGGAC
ACCATGGGGGAAGGGTGAAGGGTGGGAGTCAACGGGATTTGGGCGGTATTTGGGCGGCC
TGGGTCAACAAGGGGCTGGCTTTTAACTTCTGGGTAAAAGGTGGGATATTGTTTGCCA
ATCAAATGACCCCTTCATTTGGACCCTCAAACCTACCATGGGTTTACAATGGTTCCNAAT
ATGAATTCACCCAATGGGCAAAATTCCTATGGGCACCCGTCAAAGGGCTTGAGAAACGG
GGAAAGCTTGGTCAATCAAATGGGAAAATTCCTNATCACCATCTTCCAGGAGCCGAGNA
TCCCTCAAATCAAAGTGGGGGCGATGCTGGGCGCCTTGAGGTACCGTCGTTGGGAAGT
CCACTTGGCCGTTCTTTACCCAACCATTGGGAAGAAAGGGCTGGGGGCCTCATTTTGCA
GGGGGGGGGAGCCAA

TABLE 1
329/467

Sequence 1979

GAGTGTAGTTACTTCGGTCTTGCCTCACTGGGAGGCCACGTTGGTGACGATGCACACGAA
GCCCCGGTACTTGTCCAGGTTAACCATGTGCCCGTCCGATGTCCTTGGCGGAAAACTCGT
GCATGGAGCGCGCACAGCGCCAGTCGTCCNGGACGCGCACGGGTCTCTGGGACTTGGGAC
ATTCGNGGATCTCCGGTCGCAAGCTGCGGGGACAAGGCTTCTTCCGCCGCGCCGCGCCC
TCCTGCGCCTGCACGCTGGGGCCTTCCGCCGCCGAGGGGCTCGCGGCCGCTAGACTA

Sequence 1980

CGCGTCCGATCGGAAGTGGCGCTCGTGCATTCACTTGTCCCGCTCATGGAACCCCTCT
TTAAAAAGACGCAGGGCACCTGTGAGCGCAGGAGCGAGCCTAAGGCCACCCAGCGGCAGC
GCCCCGTGCTCTGGGCACTCAGCGTGCTGGGCAGAGCAGGTGCGATGGCCCCAGTCCTAGC
AGCCCTCGCCCCATGTCCTGTGCCCTTACATGGCTCCCGGACTGTGCAGGGAGCCGATACG
TTTGCTGATAGCAATACTGGAACCAACCCGGTGCGATGGCAGTGAGGAGACTGCCAGTG
CCTTTGGGGCTGTGCTTGAATAAAGAAAGAATTTCTGGAAAGGCAGTCTGCAAAAGAG
GGAACCCGGTGACTCAGAAAGACAGGATGTTTTGGTAATTTACCCNAAATGTGCCATCC
ACCATAGTGCTTTTTCTCTTGGCCTTCGGCTTGTGTAATCTCACAATTATGGTATTTA
ATTCTCAAAGAAATATGTATCTGTTAGCCCGNTTGGTGACACTTATACAGATGATTAA

Sequence 1981

CNCGCGTCCGGTGAAGCGAGGACGTGGTGGGTCCTCTGGTGCGAAATTCGGATTTCCT
TGGGTCTTCCGGTAGGAGCTGTAATCAATTGTGCTGACAACACAGGAGCCAAAAACCTGT
ATATCATCTCCGTGAAGGGGATCAAGGGGACGGCTGAACAGACTTCCCGCTGCTGGTGTG
GGGTGACATGGTGATGGCCACAGTCAAGAAAGGCAAACCAGAGCTCAGAAAAAGGTACA
TCCAGCAGTGGTCAATTCGACAACGAAAGTCATACCGTAGAAAAGATGGCGTGTTTCTTTA
TTTTGAAGATAATGCANGAAGTCATAGGTGAACAATAAAGGCCGAGATGAAAAGGTTCTG
GCCATTACAGGACCCAGTAGCAAAGGGAGTGTGCAGACTTGTGGGCCCCCGGATTGCATC
CAATGCTGGCAAGCATTGCATGGATTCTCCAGTATATTTGTAAAAAAAAAAAAAAAAAN
NAAA

Sequence 1982

GCGTCCGTGGTAAACGATTGGCCCTAAGAAGCCCCTGCCTGACCCGTGAGCATTGTGGAAC
CCAAAGATGAGATACTGCCCACCACCCCATCTTCAGAACAGAAGGGTGGGGAAGCCAGA
GCCCGNCTGCCATGCCCCAGCCAGTCCCCACAGCATAACAGGGTCTCCTTGGCAAGCTGT
ATTCTGGAGTCTGGATGTTGCTCTCTAAAGACCTTTAATAAAATTTGTACACTGGACTT
TAAAGTATTGNTCACAAGGGTTATGCAATTCNNNGNCANG

Sequence 1983

CCCCGCGTCCGTGACAATCGAGTAGTACTCCCGATTGAAGCCCCCATTCGTATAATAATT
ACATCACAAGGACGTCTTGGCACTTCATGAAGCCTGGTCCCCACATTAGGGNTTTAAAAA
AACCAGGNATGGCAATTTCCCCGGGACCGGTCTAAAACCAAACCCACTTTTCAACCGGC
TTACCACGGACCCGGGGGGGTATACTTACGGGTCAAATGGCTTCTGGAAATCTGGTGGGA
GGCAAACCAAGTTTTTCATGCCCATCGTCCTAAGAATTAATCCCCTAAAAATCTTTGA
AATAGGGCCCCGATTTTACCCTATAGCACCCCTCTACCCCTCTAGGAGCCAAAAANAAAA
AAAANAANAANNAAGTGCGGCCCGCTAGACTTAGGTCTAGGAGGAAAAAACCTTTCC
ACACCTTTCCCTGGAACCTGGAACATAAAAATGAATGCAAATGTTTGGTTGTTAACT
TTGGNTTATTGGCAGGCTTATAAATGGGTTTACCAAAATAAAGGCCAATAGGCATCACC
AAAAATTTTCAACAAAATAAAGGCATTTTTTTTTTAACTGGCATTTCTTAGTTTGGNG
GGGTTTTGGTCCCAA

Sequence 1984

CCGAAAGAATATCTGTGTGCTTAGGGAGGAAACTTTTTGATCTGCAGAAAAGCCAGAAGA
CATCTAGGACATCCATAAAAAATTCATCAGAGAGCATTTTACTACTGAGCTGCAAAGGGAA
AACTTAAATGGGATATGAAAAGTGAAGAAAGTGATCATAGGGAGAAAAACCATTTTCAG
ATGACAAGAGCACCTCAAAGGCAGCAGCCTCAAGGAGCAGCCATGGCCCCAGACTTGTGCG
CACGGATGCAGAAAACCTTAATGGAGGAGGCTGAGGTGAGAATGGGAAGAGTTTTTAAAAA
ATAAAAAGGGGAGCTAATATGTGAGGGACCAAAAAANNNNCANAAAAANAAAGTGCCG

TABLE 1

330/467

GCCCGCTAGACTAGTCTAGAG

Sequence 1985

AAGCTTCCTGGTTCAAATGTGCCATTTCCCGGGTTGATGCTGCCACACTTTGTAGAGAGT
TTAGCAACACAAGTGTGCTTAAGTCAGGCGGTAGGGAAATCCCTCACTAAAAGCAGGAAG
AAAGGTTCCAATTCAAAAGGTGCCAATGGATAGGAAGTCAAACAAGGAAAGGGTTAAAT
GGTTNGGAAAACCACAAATCAGGGTGGTGGGATTTGGGTGCTTACTTTTGAACAAAAA
GGGTCCCCCTGGTGGGTCTTTTTGGTTCAAACAATTGGTACAAATTGGTAAGAACTTC
TTGTCAAACCACCTAAATTTATTTTTGGTCTTTGGAGGTTTTACTTACAAAGGATGGA
NGACTATTGGGAATCCCCGGCATGCCCTGGAATTCCTAAAAGCCAAAGGGGGTCTTGTA
AGGCCAACGCTGCTTCTTCTGGAGGACTTTCCATTTCTTTTCTGGATTGGGCAACACCG
TGCAGGCTCATGGACAAATCTGGTAGGGATAACAAATTCAGTGGTGGGANTTTCCACTTC
TTTTTCAAGTCCTTTCATGTTAAAAGGAATTTAAGAACACCCACATACAA

Sequence 1986

GNGTCGACCACGCGTCCGGAGCAGCAGCCATGGCCCTACGCTACCCTATGGCCGTGGGCC
TCAACAAGGGCCACAAAGTGACCAAGAACGTGAGCAAGCCCAGGCACAGCCGACGCCGCG
GGCGTCTGACCAAAACACACCAAGTTCGTGCGGGACATGATTGGGAGGTGTGTGGCTTTG
CCCCGTACGAGCGCGCGCCATGGAGTTACTGAAGGTCTCCAAGGACAAACGGGCCCTCA
AATTTATCAAGAAAAGGGTGGGGACGCACATCCGCGCCAAGAGGAAGCGGGAGGAGCTGA
GCAACGTAAGTGGCCGCCATGAGGAAAGCTGCTGCCAAGAAAGACTGAGCCCCCTCCCTGC
CCTCTCCCTGAAATAAAGAACAGCTTGNC CGGATAAAAAATNAAAAAAAAAANAAN

Sequence 1987

GCCACGCGTCCGCAGGGAACGTGATTAGTGAAAGGAAGATAAACGTGGATGTTACTCCAA
AACTTCGTTTAATGAATGCTTAAGAATTCAAATTTTATCTGCCTCTCTTGTAATTTGGA
TCTCTTCTTAATGTACATAGTGCTAACATGAAGACCTTTTTCTGCACTATATGCAAACAG
GGTAACATACTAAACAAAGCCACTTTCAATCTTCAATCCTTGAAGGTATATCTAGGTTT
ATGACAGTAATTGTGTTTACATTTTATGGTGCCTAGTATTGACAAAATGTTATTTCCCTA
CATTAAACATGACTCCATAGACCTTTTCATTTGTGGGGTTTTTATTTCCCTATGATGTATA
CTGCCACTAACCTTNCAAAAATTACTTAGTATTGCAAAGTCAGGGAATCATCAGGGAACG
TTTAGCTTGGCCAAAATACTTGGTCTGGTTTTAAAAACCCTGTCNAGGTCTACCAAACCT
GTTCAAGGTCTACCCAATTTAAGGGGCAAATTTGGGGGNAAAAAGGAAAAAAT

Sequence 1988

GGTGTGACCCNCGCGTCCGCGAGTCCCGCGTTCTCTCCTTGAATCCACTCGCCAGCCCCG
CGCCCTCTGCGCCGCGCACCCCTGCACACCCGCCCTCTCCTGTGCCAGGCAAGGTGACCCC
ATGGCAAGGCGCAAGCCAGAAGGGTCCAGCTTCAACATGACCCACCTGTCCATGGCTATG
GCCTTTTCTTTCCCCAGTTGCCAGTGGGCAACTCCACCCTCAGCTGGGCAACACCCAG
CACCAGACAGAGTTAGGAAAGGAACCTTGCTACTACCAGCACCATGCCCTACCAATATCCA
GCACTGACCCCGGAGCAGAAGAAGGGAAGCTGTCTGACATCGCTCACCGCATCGTGGCAC
CTGGCAAGGGGCATCCTGGCTGCAGATGAGTCCACTGGGAGCATTGCCAAGCGGCTGCAG
TCCATTGGCACCGAGAACACCCGAGGAGAACC GGCGCTTCTACCGCCAGCTGCTGCTGAC
AGCTGACNACCCGGGTGAACCC

Sequence 1989

CGTCCGACAACATTTGGCATNAGGGTTGTATCTGTTGGTGGAGGACACAACGCCAAAAGG
AAATGGGATTTCTGGTTAGGCCTGCGGCTTGGCAGATGATTGTTATGGGAAAGACACTG
AGTCTGTTTAGGCAATTTCTTCTTTACTAATAAAGTGTTCTATTTTGAAGCAATG
CTGAGTTGTGGACATGTGTATAAACCGTAATGCTGTAAGTTAGGCCTCTCTTGTCTAGAA
TCTCAGCCTCTTCATACTCTCTCCCCCTTTTTGCCATATTTTCTTATCACTAACT
ATATATTTTACCTGTCTCACTTACTATCTGTCTCTCCTCTCAGAGTGTTACTCCAGGAGG
GCAGAGATAACTGTTTAGTCCAGGCTGTGCCTTTGGTGCTCAAAATAATGCCTGGGTGC
AAAATAAATATATCTTGAATGAAATAATGAAGTAATCTTTAAATGGTGCTCCGAGCATA
ATTTTCTATAGTAACACATAGTTTGCAATTAGTTGTCTCTTTCAGGGATAATGGAAATTG
GTCAACATAAGAAAA

TABLE 1

331/467

Sequence 1990

NCCCCGCGTCCGAATTTGTTTTATGGATTGAATNATGTCTCCTCTAAAAAGATTTATTGA
TGTTCTAACCTCCATGTCTCGTATTGTAACCTTATTTGGAATAGGGTTGTTGCAGAAGT
AATTAGTTACATTAAGATGAAGTCATGCTGGAGTAGGGTGAGCCCCTAATCTAAGAGGAC
TGGTGTCTTATAGGAAGAGGAAAAATGCCACATGAAGAGAGAGAGAGATGCCCAAGGAGG
TGTCATGCTGCAATGAGGGCAGAGATTGGAAGTGTGCAGCTGCATGCCAAGGAACACCAA
AGATTTTCAGCAAACACTGGAAGCTAGGAAAAAGCAAAGAATTCCTTAATATTTTCAGT
GGGAGCATAGCCCTGCCAACACCTTATTTTCAGATTTCTATCCTCCACAACATGAGGCAA
TAAGCTCTGCTGTTTTAAGCTCCTCAGTGTGAAGTATTTTTGTCATGGCAGCCTTAGGAA
ACTAACACAATTTACAAACAGATTAAGTTCACTAATCAAAGACAGCCCTTGCAATTGGG
GTTTTTTTTT

Sequence 1991

CCGCGTCCGGCGGGTGAGCCGCTGGCGCGCCGGGCGGGGGGATTGGCTGAGGGCGA
CGCGAGAGAGGGGAGACCCGGAAGTGGAGAGAGACGGGGTGAGGGTCCCGGCCGGAGGC
TAGCCTGAGGAGACCGGGGGCGGAGGGGAGACCCGGGCCGCGAGGAAAGGGATGGAGGA
GAGGAAGCCGCCGGGGCGCCAGCGGGACCCCGGGCTGAGGGGAGAGGCGCCCCAGGCCGG
GTGAAAAGTGGCCGAGGAGACCTGGGCTGGGCTGGCAAGTCCCGGACCGGGGAGGAGGGG
AGCAGCCCTCCGATGTGAGGGATCGCAGAGGAATGAGCTTCGTTCTGGATTAAAAAAA
AAAAAAAAAA

Sequence 1992

GTCACCACGCTCCGCAGCGCACGCCCCNTGCCCTGAGAACAGGAAAGGGCCCCGGAAGGG
CTGACTCACCGGGCCGACNCTCACACGAAAATGGGATGCACCTTATTTGCTGGTGCAAAG
GCAGGTGAGGGTGCTNCTGNGTGACCGNTGGCCCTNCTGCCTGGNNGCGCTGAAGGGAA
GGAGCCAGTGAGCCTGACCCCGGGAGGGGCCGTCCCCGTGTGCCGCGTTNGGCGGGGCC
CACGCGGCTCCCCANGCCCGGGTCTGGGGCCCCAGGCTTCCCCCTGNCTNGNNGNCGNN
CNTNCCNNGCTTTGGNTNCTTGNNTNGGNNTTTTTAATGCCAGNNNTCANNACATAANT
GCNTTNTGAAAGAGGTTCCAGCTATCACTTGAACCATATATATACATATATATTCTA
TCTACAAAGTGTTTATTTNCAAAGATNTTCAACGGTGAATTCAGTCCCCGGCCGCCCTT
NTGACCATCTGTNCCCNCTCCTTGTCGCCCGCCCCGGG

Sequence 1993

TCNCCNCGCGTCCTTGATATTTGAGAAAAATCATGTGAGTCATTTTTCTGTTTCTCTT
TTCTCTTAACGATTATCACTGTAATTCTGAATCTGAAAGGTAAACAATTAGTCAAAATA
TTATTGCCATCATTCTACCTGTGTTATGAACTACTTATTCATAGTTAATTCTCATTAA
ACTTACATTTCCATAAAGAAAACCAAGTATTAATAAAAGAGACTTTACTGGCTTAAGAG
GGCTGTGAAAGATTTTTGATAGTGAATCATGACCCTAAGGGAGAGATTTGTGTGATAAAA
GTATTGTATATAATAGATCAGCGATTTTTGTAAGGCAAACAGAATTTGTAAGTTGGCAGA
TCTTCCTAAGTTGCAAATGTAATGATGAGCTTGGTGGGAGAAGAATGAGTCGTTCTTGG
AATACCTATGTGCAGCCACTACCCATCTCAATGTCACCTTGTTTGCATTCTTGGATAGCT
TGTATATGTAGTAGTTTGATGAATAATTTAAAGAAAAACACCTAAAAATTTGAAAAATGAT
TGTAGGGATCAAAAAAGGCAGATGAAATTAC

Sequence 1994

CACGCGTCCGCTGACCTGACCCNTTCTGATCCNAGGCCNGGTGGTTGTCTTATTGCACC
ATACTCCTTGCTTCTGATGCTGGGCAATGAGGCAGATAGCACTGGGTGTGAGAATGATC
AAGGATCTGGACCCCAAAGAATAGACTGGATGGAAAGACAACTGCACAGGCAGATGTTT
GCCTCATAATAGTCGTAAGTGGAGTCCTGGAATTTGGACAAGTGTGTTGGGATATAGTC
AACTTATTTCTTGTAGTAATGTGACTAAAGGAAAAAACTTTGATTAAAAAAAAAAAAAA
AAAAAAGTGCGGCGGGCCGGCGCGCGGGGTGGGCGGCGAGCGGAGCCGGCCGGAGCGG
GCCGGGCA

Sequence 1995

TCCGACNAAGGAACAAAAGCGAAACACACAAACCAGCCTCAACTTACACTTGGTTACTCA
AAAGAACAAGAGTCAATGGTACTTGTCTAGCGTTTTGGAAGAGGAAAACAGGAACCCAC

TABLE 1

332/467

CAAACCAACCAATCAACCAAAACAAAGAAAAAATTCCACAATGAAAGAATGTATTTTGTCT
TTTTGCATTTTGGTGTATAAGCCATCAATATTCAGCAAAATGATTCCTTTCTTTAAAAAA
AAAAAATGTGGAGGAAAGTAGAAATTTACCAAGGTTGTTGGCCCAGGGCGTTAAATTCAC
AGATTTTTTTAACGAGAAAAACACACAGAAGAAGCTACCTCAGGTGTTTTACCTCAGCA
CCTTGCTCTTGTGTTTCCCTTAGAGATTTTGTAAAGCTGATAGTTGGAGCATTTTTTAT
TTTTTAATAAAAAATGAGTTGGAAAAAAATAAGATATCAACTGCCAGCCTGGAGGAAGG
TGACAGTCCAAGTGTGCAACAGCTGTTCTGAATTGTCTTCCGCTAGCCAAGAACCTATAT
GGCCTTCTTTTGGACAAACCTTGAAAATGTTTATTTAAA

Sequence 1996

ACGCGTCCGAAGAGGTATATCCCATACCTTTTCCCCAAATTCCCTTGTCATTAATTTTCC
AATTATGCTTCTTCCAAGTGCTGACCATCCAGCCAAACCATTGGCTACAGCCCATGAAT
CAGTATACAATGGCGCTACTGGTCATTTCTCTTCCATACAAAGTGCAACCTGGTATA
CTCTTCAAAGTTCTGCCCACTGGGAAGATTGCTTCCACTGTCCTTCAGGGATAGGG
GCTATAGAGCTGCAGCTGTCCACTTTCAGGTGGTGCCTGCATATCGTGCATAACCATCTG
TGAACCAAGCCCTAGTCTTGTCTTCTCTGTCAACTGATCATAGGGAACCTCCCATGAGG
CCATCAGTGCAGGCTAAGGGAAAGAAGGCAAGGTGGCAGGAGTGAGACCATGGACATTT
GAGCTACTTCTTAGGTAACCTTACTTGTGTCTTCCAGGACCTGCTCAAGCCAGATCACATA
TATACCACTTTAATT

Sequence 1997

CGCCNCGCGTCCGCTACACTTAAGGATGAAGAGAGGAAAAATCTACAGTGTAGGCACAGA
AATGCCTAGAAATGAGAGAAAAAAGAGGAGCGCATACTGCCTCAGAAACACCAAGA
GTAGTTTGGGAAGAAAGGAGTCAACAATAACAATATCAAAGGAATGAATGGCCAACAGT
GTAGCCTCAAGTAGGGTAGTGTGAGTAGTTGATAGACCAAAATCCTCAGCAAAATACTA
GCGAACAGATTCAACAGCATACTGAATGGATTATACACCATGGCCAAGTGGGATTTATCC
CAGGAATACAAAGGTAGTTCAGCATTAGAAAATCAATCAATGCCAACACACCTCATTAAC
AGAAAAAGTAAAGAACTGCATACATGATCCCACAATTGATGCTGAAAAGGCATGACAAAA
TCCAACATGCTTTCATGATTTAAAAAAN

Sequence 1998

CCACGCGTCCGCACACTTGACCCCAGAGATCACGCCACTGTCAGCTGCCCTGGCTCAAAC
AATTGCCAGGGAATGGCACCTCCACCTGTCTCCATGGCTCCTGTGGCTGTATCTGTGGC
TCCTGTGGCCCTGTGGCTGTATCGATGGCCCAACCCTTGGCAGGAATCACAATGAGCCA
CACCACCACTCCCATGGTGACTTACCCTATCGCTTCCAGAGCATGCGCATCACGGCCAT
GCCACACTGATGGGGCTAATGGACACTCCCTTGGTATAGCCTCGCAGGGCTCCCTTGAGAACT
GGGCCCTTGCCCACTCACCTAGCCTTCCCCATCCCTGTCTGAAGGGCTCCCTTGAGAACT
AGGACAAGAGACTACAAGGAGTATGTCCTGAGGAGGGGTTGGGATGGTGTGGTTTTCTCT
CACCTCCCTTTTATGAGGGTCCCTTGTCCATCTTCAAGCCTCACAGTGGGGGGCT

Sequence 1999

NNGGCAGGAGAGGTTCAAATGCATTGCATCAACCTACTATAGAGGAGCTCAAGGTAATGG
GGCTGGGTGAAGTGGGGTAGGTGGGTCTCAGAGTGCACATGGCTTCTCATATGGAGCTGG
AAGGATTGGGGAATGAGCAGTAGTGTCTTCCCTGTCAACCTGGGGCTGTTTNTGCCACT
CTTCAGCCATCATCATTGTCTTCAACCTGAATGATGTGGCATCTCTGGAACATACCAAG
TAAGTGAGCATCCTGCAATATAATGGGAGGCTCCG

Sequence 2000

ACGCCTCCAGCCTGGGCAATAGAATGAATGAGACTCCATCTCAAAAATAAATAAATAAAT
AAAATACTGAGAAAAAGAATCTTTATTGTTTCTGTAAAATAAATTTTCTTTTAGCAAA
GCTCTTTTCCCTTTGACTCTCGCCGCCTAGATTTCCGTACCAGGACCACACATTTTAA
GATGCTCCTCACCGCCGTACAGCTCCTGTACAGCCCAGAAAGCTCCGTGCGCACGAAGCT
CATCCAGCTCCCGTGGTCTACGTGATGCTCATGCAGCACTCGCTGTTTCTGCCGACTCT
ACTGACGTCTGACGGAGAGGAGAGCCCGGACAGCCAAGTAAAAGGTGACCCCTCACCCCA
GCCCTTCCATTCCGTATCCAGATTTTATCTCCTGATTTCTTA

Sequence 2001

TABLE 1
333/467

CCCGCGTCCGCCGAGATGGCGCCCCTGCACTCCAGCCTGGGTGACAGAGTGAGACCTTGC
GTTTAAAAAAAAAAAAAAAAAGGAAAAGGAAAAAAAAAGTTCTACTGTGGGTAAAATGCTATC
ATGCTATCAAACAGCATCACATGCTACAGAGAAGTCTTGTGAAAGGATGTCAGTGTGGCA
AACTTCATTGTCTTTTAAGAAATTGCCACAGCTATCGTAATCTTCAACCACCACCACCCT
GATGAGTCAGTAGCCATCGTTAACGTTGGCGTAAGACCCTCCACCAGCAAAAAGATTGTT
AGCATTTTTTTAGCAGTGATGTATTTATCAATTATACATAATGCTATTGTACACTTCTTA
ATAGACTATGGTATAGTGTAACCATAATTTATGCACTGGGAAACCAACAAATTCATGAGA
TTCGCTTTATTGTANTTGTCTGGAATTGAGCCTGCCCGTGTTCCTTGAGGTATACCTGT
GTATTAGGTATGTTCTTGTATATAAAACCCCATTTTTTAGGGTAGGAAACTAANGCTTA
GAGTTTGAGCCAATTTTTCCCAT

Sequence 2002

CGTCCGCACTGTTCAAACCCTGTCTATGCTTTAAACTGATGCGAGATGATTTTGTTTTT
GCATAATCAATACTTAAGGGTGCAATCAACTGTTAGTAATTGTGCAGTANAGTAAAGCCC
TGTGGTGTATCAACTACTAGTTAAGAGTCTCAGTTGATTTCTGTAATGTTTGACCTAATA
ATAGCCCGTTTCGTCTCTGACCCAACAGAGGAAGCACAGATCAAATCACCTTGGAGTGGT
CACCAGGGGGACAGGGAGCCCCCACCATGTATCAATGGGTGATTTATGATGCCTTCTG
CCCTTTGGCGAGTGAATGGGTTCCCATAGGGGAAGTTNGGCCTCCCTCCGTGAGCTTTG
GAAAATGTTTTCTAATAGACACAGGGGAGGCCAGTTTTGTTTTNANAGCAATTATTTT
TTCCCAAATTCNTCTGTTTTGGNGGTNGGAACCTGNGGGGGCCCCGGGGTTTCTGGTTT
TCCTTTTTNCNGCNGGAAAATTCCTGGCTAAANANTCCCTTTTTTTTTTTNGGTTTNC
CANAAGCCCTTTTTATAAATGCANNATANTGAATNGCTTGGGGAACNNAAAATAAANTTT
TTTTTCCANTCAAAAAANAAAAAAAAAAAAAAAAANGGCGGGGCCCTTANA
TTTTTTAAAAAAAAAAAAACCCC

Sequence 2003

TTNCCATCCCTCAGGTGCTGAGAACCAAAGTGCCTAGAGAAGGGCAGGAGGAGGATGACG
ACGATGAGGAAGACGATGCTGACGAGGAGGCTCCCAAGCCCGACCATTTTGTTTCAGGACC
CTGCAGTGCTGAGAGAGAAGGCAGAAGCCAGGCGCATGGCCTTCTCGCCAAGAAAGGGT
ACCGGCATGACAGCTCAACAGCAGTGGCCGGCAGCCCCGAGGCCATGGGCAGAGCCGCG
AGACAAACCCAGGAACGCAGGAAGAAGGAAGCCAACAAGGCGACAAGAGCCAACCACAACC
GGAGAACCATGGCCGACCGCAAGAGGAGCAAAGGCATGATCCCATCCTGAGACCTGGTGC
AGGGCCAGTGGGGAGGCAAGC

Sequence 2004

TNCACATTTCTCCTAAGCACATGGGTCAATTCTCAAGGAGAGACCATATGTTAGGTAC
AAACATTCAAAAAATTGAAATATTATCAAGCAACTACTCTGACCACAATGATGTAAACT
AGAAATCAAAACCAAGAGGAATTTAGAACTATAGAAGCACATGGAAATTAACAATCT
GTTTCTTAATGACCAGTGAGCCAATGAAAAATCAAGAAGAAATTTGCAATTGTTTGAA
AGAAGTTATAATGGAAACACACTATACTAAACCTATAAAACAGCAAAAGCAGGACTAAG
AGGAAAATGTATAGCTATTAAGTGCCTACATTTTTAAAAAATGAAAAAATTTAGATAA
ATCACTTATCTATGAATTTGAAAAAAAAAAAAA

Sequence 2005

CGGGAAGCTTTNTTTAATTAAGCTGAAACCGAAGCTTTAATTTAATTTAATAGTTCC
ATGTGCCCATATTGGACAGTATAGCTCCAGGGTTTATTAACCACCATTCCTGGTGATAG
GATAGAGCCCAGCACAACTAATCTGGGCAACAAATCAAAGGGCACAAGTCGCATGTAGG
TTCCAAACTCAGTACATTTTAGAGAAAAGGAGTTTGATTATGTAGTAGAAGGAAGAACTG
CCTGGTGGGACTCATGATCTTCCTTTAAGAGCAAGGCTCAAAGACCTGGGGAGTTTTGAT
TTGATGCTATGATGTCTCCTGGGGCTCAGAATATTATGAAATGAGGAGTGAATCTCTGAG
TGAAAAGAACTCAAGCTGCTTGTTGCATTGCGGAATGTCTTAAGAGGTAGAGAGGCGTC
TGTTAAGTGGCTTTGTATGAAGGTTTCAGAAGGTAAGATGAGCC

Sequence 2006

NCATTTAACTGTAATAGATATAGAACGTATCCTTCAATAACCAACAACAAATGCTTGTTT
CCAACAGGCTCTGATGGTTGTATATANGGAAACCTTGATACCAATACGTCCAGCTGACCC

TABLE 1

334/467

AGAAAAAATCAGAGCTTAGTTAAATCACTGCTGCTCAAGGCTGTTGTATCTGGNNACGC
TCGAAATGGAGTTGCACTCACTGCCCTGGATCAGGATCACGTCGCAGTCCTAGGAAGTCC
ACTAGCAGCTTCTAAGGGTAACTGACATCCAATTCATTAAGAAGGCCTTTGTATGTTCC
TTCACGGTGTACCTTTTAGTCTTCCTTTNTTTTCATTTCAATTATTACCCAGACTAAT

Sequence 2007

GTCCGGCCCTGCACTAGGGACTGGGGAGGACATGGAGAATAATATATGTACCAGCACAGA
CAGACAGGCAGCTTCTGGAGCCAGACTGTCTGTGTGATCTTGGGTAAGTAATCTAGCCTA
ACCATAGAGATGATAACAATTGTACCTGCCACAGGCTCATGGGGCTATTGTGATGGTGAA
ATGTAAAGATGTAAAGTATAGAGAAAGGATGTAAACTGCCCGACATATAGTAAGGGCCA
TTTAAAGATGCCTGTTATTGTCCCTCTTCTTGAGAGCATATTAAGGGCTCAAATCTAGC
CAGAGTCTGGCGGGTACAGAGGTAAACAAATAATGGCAGGTTGGTTAAGTACTGGACACC
AGTGATGTCCAAGGTCTCTAGGATGCCCTGGAGAAATAATGAACCTCTCTAAGATTGTTT
GGAAGGGGATTTATAAAGGACATCTAGGCTGGGTTTTGAGTGAGGTATGGGGAGTTCGCT
GGTCAAGAATGTANGAATTACAAAAGCANAAAGTGCCTTATTNAAAAAAAAAAAAAA

Sequence 2008

NCCCCGCGTCCGGAAAATATTTAGAAAGCACCTTGAAGATTAGTATTTTTATGTAACCTT
CTGTTGGAGAGATGTCTTCAGGAGACTGAAGTAGAAGAGCGACTGTCAAAATGGAAAGTC
CCAGAGACATCCAATTTATGTAAATCAACATCACCTGAATTCAGAATCTCATCCAGATT
CAACAAAGACTTCTGAATGCCAACAAAGAAGAGGACTGAATTTACAGACTCTCACTCTAA
CAATATATGCTGTTCAATTTGAAAACAGAATAAAATTATTTTGGCAGAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Sequence 2009

AGAGTGTNCAGCTGGCTTTCCTCACTTGGGAAAAGGGTACTGCCAGTCTAAGCAGCCTC
CTCTGTACTCAGCCAGGACACCCAGCGCTGGGACCTGTTTGTGTCTGTTTGGCTTCCTT
GGGAACGGCACAGTCACTCACCTGCCATTTGCGGAAATGACCTGGTGCATTTGACTGT
TAAGCAATGCGTTATTGCTGTAGTCAAGGTTAGTGCAAGCAAGGAAACATTCCAGTAAG
GTATTTGTTTCCATTTTCTGTCTGTGCTTCTGTGAGAACTTGCTAGGACTTTAGTGGCC
AATAAAAAAGAAATTCTAGCTTGATCGACCCACGCGTCCGGTAATGATTGATGAGGACAT
GACTGCCCCGAATTAGCATGGCTGATGTCAAGTTCTCTTTCCAATGTCCTGGTGCATGTA
TGCACCTGCCTGGGTAGCCCCGAAGCTCTGCAGAAGAAGCC

Sequence 2010

GCGTCCGACAAACATAATGATCCGTGACAGTGACCTTAATATATAAATGTGTGTGTTGTG
ATTGTTCTACTGACCAGCCATTTCTGTCTCCCTCTTCTTATGCCTCCCTGTTAAATTAG
ACACAACAACATTGAAATCAGACCAATTAATAACCCTACAGTGGTCTCTGAGAGAGGCTA
ACAGCTAATCCTCTTGTGCTAAACAGCCAAATTGTGAATGCAAAGGAAAAGTTCTCAAAG
GAAATTAAGTGTACTCCAGTGAACACATGAATGATAAGAAAGTGAAACAGTCCGGGC
GTGGTGGGTACGCGCTGTAGTCCCAGCACTTTGGGAGGCTGAGGTGGGTGGATCACCTGA
GGTCAGGAGCTCAAGACCAGCCTGGCCAACATAGTGAAACCCTGTCTCTACTAAAAATAC
AAAAATTAGCTGAGTGTGGTGGTGCACACTTGTAATCCCAGACACTCGGGAAGCTAAGGC
CGAGAGAATCACTTGAACCCAGAGGTGGACATTGCAAGTGAGCTGAGATTGTGCCACTT
GCACTTCAACCTGGGTAACAGAGAGAGACTCTGTCTCAAAAAAAAAAAAAAA

Sequence 2011

GTCTATTAACATACGGAGCTGAATCTGCCGACGCTNGAAATGCTCAAGAACCAGCTGGAC
CAGGAAGTGGAGTTCTTGTCCACGTCCATTGCTCAGCTCAAAGTGGTACAGACCAAGTAT
GTGGAAGCCAAGGACTGTCTGAACGTGCTGAACAAGAGCAACGAGGGTATGGGGTAGGCG
GGTGAGGGTAACCTAAAGTGGCGAACCTGCTTCTCTCGTCCCACCTCCTAACCAGTTTT
TCTTACCTGAAACGAGAAAATCCATTACATATCGTATACCGCTTCATGAACCTTTGCAT
GTTGCCTGCCTAGAATTGAAAAGTACAGGACATTCCCTGTCTCCTATTGCCCTGTTTCC
GTTCTTTTCACTGTCTGTGGGTGCTGTGCCCTGTTGGAACCTCTCTTAACGTCTTACC
GTTGGAGCCGCTTACCTTCCCAGGTGTTGTCTTCATTGGCTTTCACAAGGGAAAA

Sequence 2012

NGGCAGCTGCTTTGTCTGGGAGGGGGCTTTGTGTGAGTCTCCCTGAATGAGCAGGGCTG
 GCGACAGTTGTCAAAACACATGGTGCTTGGTCAGAGCCCCGTAGAAGCCCCCTTGCTCT
 CGCATGGCCTCCGCCTGCACCCGGGGCGTGGAATGTGCTCTTGTGTGCTCCCTGGCTGTCT
 GCTTGCTTCTACACTGGCCCTGCAGATGGAGGGGGTGGGGTACAGGGGTTCTATAAGA
 AGCAGACACTTGGGGTTTTTCCAGGCCCTGTTGCAGGAGGGTGCGTGGGCTGGTTTCCC
 TGAAGGCGCCTGGGCCGTGTTGGTGTTAACTGATCTGAGATCTTCTGTGGCCCTGATGTC
 TATGAGCATGCCCCAACTTGCANGGGGCTGAGTAGCCCGGGCACCACCAGGAGGCTTGCG
 TGCCCTGTGCTTGGGTGTACCATGCCCTGTCAGCATCGTTGGTCTGTTAGGGGTCAGGG
 ACTTCGGCTTCTTGTTTAATACCTNC

AAGTCGGACGCGTCTCAGTTCCTTAAAGCTGTTGGTCCAAGGCTACCCCTCAGTTCCTTGC
 CACATGGGCTTCTCCAACAAGGCCATTTACATTAACAAAAGCCAATGAGAAAGAGAGTTAC
 CGGGCATGGTCGCTCACACCTCTTAATCCCAGCACTTTGGGAGCCCGAGGCGGGTGGATC
 ACTTGAGGTTAGGAGTTCGAGACCAGCCTGGCCAATATGCTGAAACCCCGTATCTACTAA
 AAATACAAAAAATTAGCCTGGCATGGTGGTGGGCACCTGTAATCCCAGCTACTCAGGAA
 GCTGAAGCAGGAGAGATCACTTGAACTTGGGAGTCGTAGGTTGCAGTGAGCCAAGATCGAG
 CATTCACATCCAGGCTGTGCAACAAGAGCGAGATTCATCTCANACAAAAAAGATNA
 ANNAAAAAAAAAAANT

[illegible]

CGCGTCTGAGAGGTCAGGCCGGTCTGGGGGCAGCAAGCCGGCCACACTCCCCACCGC
GACCGGGGCTCTGGGCTCGCTTCTGCTTCAGTTTCCCCAAGCTCCNGATGAGACTCCGC
TACTACCACCACGTCGATAACGCAAACCTAGAGGGACTCAGGGTAAACTGAGGCACTCAA
ACTGCCGAGGAGCTCCGCCTCCCGAGAGACATTTAATCCGGGGGGATTTCAGGAAACTT
CTAAATTAAGGGTAGCGGCTGCTGCAGCTGAGGGGGGGCACACCGGTCCCTGCGCCCGG
CAGCTGCCGTGAGCTCACGCCCCGAAATAGCCCCAGGGGCCCCAGCCGCAGCTGCCACTG
GGTCCGGCTGTCACTCAGAGGAAGCACGGAGCCCCCAGCCCAAGGGTCCCTCCCCTTCG
CATCGCGGGGTTTTTCCAGCCGACCGTCGGCCACTTTTTCTCCGACNGCTGGCAGGGAA
GAGGGGGATTGGGGGCCGGGACCCCAAGGGAGGCGGTCCCCAATGGGTGGGCCAAGGG

ACGCGTCCGCACACCCCCAGGTGCCGCGCTGGCCCCCAGGCGTGGTGGCCTGCACGGA
GGGGACCACTTACGTCTGCTCCGTCTGCCAGCAAAGTTTGACCAAATCGAGCAGTTCAA
CGACCACATGAGGATGCATGTGTCTGACGGATAAGTAGTATCTTTCTCTCTTTCTTATGA
ACAAAAACAAACAAACAAAAACAAACAAAAAAGCTATGGCACTAGAATTAAAG
AAATGTTTTGGTTTCATTTTACTTTCTGTTTTGTTTTGTTTCGTTTCATTTGTACT
ACATGAAGAACTGTTTTTGCTGCTGGTACATTACATTTCCGGAGGCTTGGGTGAATAA
TAGTTTTCCAGTCTCCCTCGGATGGTGGCCTTAAGGCCTGGTAGTGCTTCAAGAGGTCC
ACTGGTTGGATCTCTAGCTACTGGCCTCTAAACAACCCTTCTTTACAAAAAATCTT
TAAAAAAAAAAAAAAAAA

TABLE 1
336/467

Sequence 2017

CGCTCCGCAGCATCAAGAGTTATTTTCTGACTGTCAAGTTTCAACATTCAGGTCTGTCC
CCAACAGGCACCACACCGGGGTGGACTCCCTGTGTAACCTCTCGCCACTGGCTCGGAGAG
TAGACAGAGTTGCCATCTATGAGGAATTTCTGCGGATGACCCGGAATGGTACCCAGCTGC
AGAACTTCACCCCTGGACAGGAGCAGTGTCTTGTGGATGGGTATTCTCCCAACAGAAATG
AGCCCTTAACCTGGGAATTCTGACCTTCCCTTCTGGGCTGTCATCCTCATCGGCTTGGCAG
GACTCCTGGGACTCATCACATGCCTGATCTGCGGTGTCCTGGTGACCACCCCGCCCGGCG
GAAGAAGGAAGGAGAATACAACCGTCCAGCAACAGTGCCAGGCTACTACCAAGTCACAC
CTAGACCTGGAGGATCTGCAATGACTGGAACCTTGCCCGTGCCTGGGGTGCCNTTTCCTCA
ACCAGGGTNCNAAANAACCTTTGGCTGGGGCAAGAAATNAAANCATATTTGGTCCGGA
AAAAAAAAAAAAAAAAAGGGCCGGCCCTTNAACTAAGTCTAAANAAAAAAAAACTTTC
CCTTCCCTGGAACCTGAAACATAAAATGNATNGCAATGGTGGNGGTNAACCTGGGTTA
ATTTGGCANCTTTTANTTAAAANTTGGGGGGGGGGT

Sequence 2018

CGGATCAAGACCATCCTGGCTACAGTGAAACCCCGTTTCTACTAGAACTACAAAAATTA
GCCGGGCGTGTTGGCAGGCACCTATNGTCCAGCTACTCGGGAAGCTGAGGCAGGAGAAT
GGCGTGAACCTGGGAGGTGGAGGTGCAGTGAGCCAAGATGGCACCAGTGCCTCCAGCCT
GGGCGACAGAGGTAGACTCTGTCTCAGAAAAAAAAAAAAAAAAAAATCAGTCACTGGAT
TTGGGCCACCCCTACCTNCATATGACCTCATGTTAACTTGATGACATCTGCAAGACCCC
ATTCCCAAAAAGGTCACTTCACCAGTAAGTNGGGGGTTAGGACTTGAATATAGCTTTTT
GGTTGATGTAATCAACCCACAGCACTGCCTTTTNCATTCCATGTTATGTTTTTGAGAT
TTTTGAGATTTGCCAAATATATGAAGCTATAAATTATCAGNGAAAATAAATAATTTCAA
ATNTAAGCTGTTGAAAACCTCTAAATTATTTTAAGCCTTTAAAAGAAATGGATTTTTGNA
GACAAGGNCCCGNNNGGCTTCAATGCCTNTAATCCCCANCACTTTTGANANGGCTGATT
GGGNGNGNGGATTCCACCTTGAGGGTTTAGNGGNTTCAAAGACCAAGCCTGGNCNCTAN
CGGNGGTTGAAAACCCCTGGTNNTTCTNACCCTTNAAAAAA

Sequence 2019

GTTTTTTTATTTCTACTGTCAAATGATGTGCAAAACCTTTTACTGGTTGCATGGAAATCA
GCCAAGTTTTATAATCCTTAAATCTTAATGTTCCCTCAAAGCTTGGATTAATACATATGG
ATGTTACTCTTTGCACCAAATTATCTTGATACATTCAAATTTGTCTGGTTAAAAATAG
GTGGTAGATTTGAGGCCAAGAATATTGCAAAATACATGAAGCTTCATGCACTTAAAGAA
GTATTTTTAGAATAAGAATTTGCATACTTACCTAGTGAACCTTTTCTAGAATTATTTTC
ACTCTAAGTCATGTATGTTTCTCTTTGATTATTTGCATGTTATGTTTAATAAGCTACTAG
CAAAATAAAACGAGTTGACCCACGCCGTCCGGACACAAGAAAGGAATATAATTACATAC
TATTGCATTTTTAATAAATCTTTGAAATTTGCAGAATTAAGATTGTATTGTGATTTTC
GGTTAAATGATAATTGAATGTAATATTTAAGATGCAGCACCATATTTATAACCCAGCT
TAGGCATTTCTTCATATTTAAGGGAAACCCCCACCTCCTTCTTTAANGGCGCTTCT
TGCTCTCTGAAATGCCCTGCTAAATGCCCTTCTCTTAATTATTTGGAATAANGGTAGGTT
TTGGGGGAAAAATTTTAAAAAAAAAANGGGGGGGNAAAAAAAA

Sequence 2020

AATTTTTNATAATCTGAATTATCACAAAAAGATAAGGATTTTTAAAGTTATTTGGAGGGA
GTGTACACATTGTTTATTTAATAGTGAGGGCTATTATACAAGCNGGTCNATGTAAATAA
TCCCTTTATATGTATGAGCATAGTTAATTTGGTAAACAACAGACAATTACATACTGTGAT
CATAAGGACTTTAGTATCAGTTACCATATAGCAGGTACTCTTTAGTCAGGATATACCTAT
ATAGGTGCTAAATTAATAATCAACCTTATATCTCAAATTTACTTCCTAGTAGAGTGTAAC
GCTGCCATAAATTGCAAGCCTAATTATGGGGTTGTCCATACTGCAGTCCCATCAGTACTCA
TACACCAAAGGGTCGGGCCTGTGAAGACTGGAAAAAGAATAAAATATCTTTTGATTGAGA
TACTACAAGCAAAAATGACTTTCTGGCTACCATTACTGCAAAGAACAAAACCTCAACTGAA
AACAATATGTAGCAATTAAGGTCTCATTATCTTCAAAACACAC

Sequence 2021

CCCGCGTCCCGGAACCTTACCCATAACCCTAATGATGCAAGTCATATGGGGGAACACTT

TABLE 1
337/467

TGTAAATGGTCAGGATAAAAAACCAAATCTGGGTGCCAGATCCCAGCACTACTTTTTATTA
CTGGAGAAATGGGGGGGATAGAAAATCTACTTTGAATTATTTAGTTTTTTTTAAAGAGT
GGGTTGTGTTTGTGCTTCTCCACCTTTCAAGCATTATAGAACATGCTGCCCCACATAC
AAAGTCAAGACCACTTACTTTTATGTGACACTAGTAGTTTGGGGTTAATGGTTTGNGTAA
AGAACAAGCTGCATATGAGTAAAGGTTACCCCAACCCNCAGTGAGGANGAAAGATGTTCA
CATACTGGGAACTGTCCTGNCAAATAAATNTGGCCCTATTGGGCTCTGTTTTAATTNGG
AAGNGGGCAAAGTAACCTCTTGCTTTGGGGCAACTATTTGGNNTCAAAATTANAAACCT
TTTAGACCCAAANTTNANNNNNNNNAAAAANNNGNNNNNNNANGGGGCCGNNCCNTTNGAC
CTTAGTTTTTANANAAAAAAAACCTNCCACACCTTCCCCTTGGAACCCTGAAACAATAA
AAAGGAAANGCCANTTGGGGGGGNGGGTAAACCTTGTTTATTGGCACNCTTTATAAAN
GGNTTNCACAAAANAAAAAGGCAATTTGCCTTCCCCAAANTTTCCCAAANAAAAAAGGG
CCTTTTTTTTTT

Sequence 2022

ACCACGCGTCCGGTCTGCAGAGGCCCGGGCCTGGGCACAAAGGGAGAGAGGCCTCCATTG
TCCCGCAGGGGCCAAATGCAGACCGTGCATCCCCGGTGACCTCGGGGACCGTNCTCTGA
TCAGCAGGATTTTCTTGGACTCTGGGGTCTTGTCTGCTCAGGCATCCCTGCCCTGCTC
TCCTTGAGGGCCCTCAACACTATCTTCCCTGGACACAAGTCTGGGGACAGCCGGGTGTTG
AGGACCCCAAAGGGGTGACTACCTGCTCCTGGGCCCCACAGAGTCCTTGTGCTCAGTGTA
GTGGCTGAGCTGGGGGATGCCCTGGAATTCGGAGCACACAGCACTGGCTTACTGTGGTAC
CTGTGCAGTGAAATTGGAGACAGAATCACCAGGATGGAACACAGGTCTTGCAAGATCACG
GAAAACCTTTTAGAGTTGTCTTGACACCACTTGATGTTGAGTGTCCGGGTGTTGTAGGA
TGGCCTGCACTCAGTCCAGGGGCAGG

Sequence 2023

CGCGTCCGCTTGACCCTGTATTTGGGAGTCGAACGGAGAATGGAACTGAAAGTGAAAA
TCAGGAAAAGGTAATGGAAGAAGAAAGCACTGAAAAGAAAAAGAAAGTTGAAAAAAGAA
ACGGTCACGAGTTAAACAGGTGCTTGACAGATTGCTAAGCAAGTGGACTTCTGGTTTGG
GGATGCAATCTTCACAAGGATAGATTTCTTCGAGAACAGATAGAAAATCTAGAGATTGG
ATATGTTGATATATCACTACTTGTGTCTTTTAAACAAATGAAAAATTGACTACTGATGG
GAAGTTAATTGCCAGAGCATTGAGAAGTTCAGCTGTTGTAGAGCTTGATTTGGAAGGCAC
CAGAATCCGGAGGAAAAAAC

Sequence 2024

CGCGTCCGCAGACTTTCCCTCTGCAATAAATCCTGTAACAAAATTGCACTCGCACCCCTT
ACGTTTATACAAATTTTTAAATAAATAAATACTAGAAAANGCAAGAGGAAACCAACCCA
AAATTATTAGAAGAAAAGAAATGATAAGATTGGGGCAGAAATTAATGAATTGATACTAA
AAATAGTACAAAAGATGGATGAAAGAAAAAGTTGTTTTTTTTTTTTTAAAGATAAGCAA
AATCAACAAACCTTTAGCCGGAAGTGTAAAAGAGAGAATATCCATATGAATAAATCAGAG
ATGAAAAAGGAGTCATTACATCTGATAACACAGAAATTCAAAATATTTTAGAGACTATTA
TGAGCAACTATATGCAGTAAATTGGAACCTTAGAAGAAATGGATGAATTCCGAGACACA
TAAAAACATACCAAGATTGAACCATGAAGAAATCCAAAACCTTGAA

Sequence 2025

AATTATCCTGGTGTGGTGGCGTGTGCCTGTAATCCCAGCTACGCTGGAGGCTGAGGCATG
AGACTCGCTTGAATCCAGGAGGCAGAGGTTGCNTTAAGCTGAGACCACACCACTGCACTG
CAGCCTGGGTGACAGAGCAAGACTCCGTCTCAAAAAAAAATAAGCTATTGATGGGCTAT
ATATTGTTAAGCTATAGGGTGTGGTTACAGTGTCCAGTGTAGCATTGNTCGATTAAATTA
TAGCCTCTTGTGGCAACAGCAAGCAGNTCCAGAGATGAATACACAGCTTGAGTAGGCAG
GGGGGAGTAGGACATGACGGCTGCCTCATCTTAACACCTTGGGCCTGATAATTTAAAGG
ACTCACAGTCCTCAGATAAACATGACTTTCTTTTCTCATGAGGAAACANANAAGGTGGCT
AAAGGGTATNTCTTCTCTCATGATCCCAAACCTATCAGGTTT

Sequence 2026

ACCNCGCGTCCGGGTGCTGTACCAGACCAGAGGCCAGCTCCATGTCCTCCGCGTCGGCAA
TGATACCCACTGCCAACCAACAAAAATTGGCTGCAACCATCCCCTACCAGGACCCGGCCC

CTACAGGGTGAAGTTCCTGGTGATGAATGACGAAGGACCCGTGGTGAAACCAAGTGGTCC
AGCGACACTCGCCTGCAGCAAGCCCAGGCACTTCGGGCTGTCCCCGGCCCCAGAGCCCCG
GGCACCCTGGTCATCATCGCCATCCTGTCTATCCTCCTGGCCGTCTCCTCACGGTCCTC
CTGGCTGTGCTCATATACACCTGCTTCAACAGCTGCAGGAGCACTTCCTATCAGGCCCA
GAGGAGGCAGGGAGTGTGAGAAGATACACCACGCACCTCGCGTTCAGCACTCCTGCCGAG
GGGGCTTCTGAGGGGTTCAGAGGGGGCCACGTGTCCCTCCACCTCCTCCCTGGCCCAGG
CTGCAGAGCCTGAGCTGGGACACGCCCTGAAGCTTCTGGACCCTGAGAGAGATTGGTTCT

GCTGCTAGAAAAGGTTAGACTAACTGGGAGTTTCATAATTTGCTTGGAGATTTAAGAAAG
TTTTTGAAGAGGTTTTCTGTGTTGAGATGAAGAGGAAGATTGAGACAAAGCACAAATGGAG
AGTAGGGGAGAGAGCACTTCAGAATGTTTGAAGGTGCTAAGAGGAAGTGCTTGACACACG
GGAGGAAC TGAGAAAGAAGGCTAGGGCCATCGGCTGGAGGGACAGGACAGGTGGAGATGT
AAGCATGGGCCCTCCAGACCATTGGTAAGGCCACTGGATCTTTACTTTAATGCATTTGTGCA
TGTGATTAAAAA

CCCCGCGTCCGAAAAAGACATATGTACAAGTCTATTTCTATAGCACTATTTGTAATACC
TAGCACTATTTGTANTATCTAAAGACTGTAACAACGCAGGTGCCACAAAGGGAAAATG
GTTTGACAACTTACGAACATCCTTTTAAAGGAGTACTAGACAGGTCAAAAAGGAATGAA
GAATGTATATATTACTATGGAGTGAATCTTCAGGGTATATGACTAAGTGAAAAAATGCAA
GGTGAAGTANTATGTAACATATGGTACAGTTTACTTAAAGAGAGAAATACAGATGTATATA
CACATTACCTAAAGCAAATGAGGACCCTACTGGGCTGCCATCCCAGCTGGACTGCTGCT
TGGGAGCTCAGCATCAAGTACT

CGCCCCGCGTCCGGAGAGAGCTGTCTTTGCAGTTACTAGGTTTCATCAAACCTTGTTTTT
TCAGTATGGTAGGTTTAAAAATGGGGATACATTTTTGTTTTATTTGCATTTTINNAATAT
TTTCTTAGGTTAGTTGGCTACTTAAATTTCTTTTTCTGAAAACCTTGATTTATAGCCTT
TAAAAATTCATTGACTTGCCTGAACTATTTGTAAATTACAGAAATTAGCCCTTTGTCG
TATGTGTTGCAGGTGCTTTCCAGTTTGCCAGTGGTCATTCATTTGGTTTATGGTACTT
TTGATAGACCAGAATCTTTGCATTTTATTTAGTGAGATTTATCCATCTTTTCTGTGTGG
CATCTTGGTATTATAGCATTAAATTTCTCTTTCT

CCACGCGTCCGGTTGGGACGGCACCAGGCGAGGTGTTGAGTTGGCTCGGCTCAAGGTTCT
TCGGGGTGTGAGCTGGCATGAGGACCTGTTGGAAGTGGGATCCAGGCCTGGNGCAGNCTC
CCAGCTGCCTCGATTTGTGCGTGTGAACACTCTCAAGACCTGCTCCGTTTATGTAGTTAT
TTCAAGAGACAAGGTTTCTCCTATCAGGGTCGGGCTTCCAGGCTGGATGGAGTGCCCTGG
CGCATCTCGGCTACCCGCAACCTCTGCCTCCTGGGTTCAAGCGATTCTCTGCTTCAGC
CTTCTGAGCAGCTGGGATTATGAAGGGGT

NCCCCGCGTCCGGCTCAAGGAGGTGATTAAAAGAATGTGTAATTTAGTATTTTTAAGATG
TTTAGAGTTTTAAAACTTACGTTGTTGCTGTCATTGATTTAAATAGTNATAAAGAATA
TAAACTGATATAAGTAATTTTTTTTAAATTCTTCAGATATAATGAAGATCTGGAACCTGA
AGATGCCATTATACAGCCATCTTAACCCTAAAGGAAAGCTTTGAAGGGCAAATGACAGA
GGATAACATAGAAGTTGGAATCTGCAATGAAGCTGGATTTAGGAGGCTTACTCCAACCTGA
AGTTAAGGATTACTTGGCTGCCATAGCATAACAATGAAGTGAAGTGAAGGAAATCCAGAATTT
CAGATAATCTATCTACTTAAACATGTTTAAAGTATGTTTTGTTTTGCAGACTTTTTGCAT
ACTTATTTCTACATGGTTTAAATCGACTGTTTTTAAATGACACTTATAAATCCTAATAA
ACTGTTAAACCCAAAAAAAAAAAAAAAAAAAAA

CGACCCGCGGTCCGGCGTTCTACCCCTTCCGGCCCGTGTCTATCCGCCGCTCCACCTTC
CATNCGGCGCCGGCTTTCCGGCGGACGGTCGCCGCGTTCCATCGTCGCGCGGCCCTTCGG

TABLE 1
339/467

GCGCCCGAGCCCGCAATGTCGGGCCCCAACGGAGACCTGGGGATGCCGGTGGAGGCGGGA
GCGGAAGGCGAGGAGGACGGCTTCGGGGAAGCAGAATACGCTGCCATCAACTCCATGCTG
GACCAGATCAACTCCTGTCTGGACCACCTGGAGGAGAAGAATGACCACCTCCACGCCCCG
CTNCAGGAGCTGCTGGAGTCCAACCGGCAGACACGCCTGGAGTTCAGCAGCAGCTCGGG
GAGGCCCCCAGTGATGCCAGCCCCTAGGCTCCAAGAGCCCCCAACCGGGACCCAACCCTG
CCTCCCTGGGCTAGGCTCTGGCCTGGGCACTCACCCCTGGCTTAGACACCTTCTCAAGG
GCTGGCCTTCAGGGACCCCTGGTGGGTCTGCTGCCTGGGCCACCCTTCTGCCTGGGCCTN
CCCTTG

Sequence 2033

CGACCACGCGTCCGCTACCTCAAGGNCCTGGGCACCGAGCGGGCCTACAAATCCGCACTG
GACTACACCAACGAAGTCTGGGGATTTTCATTGACCTCCANAAGAAAGAGAAGGAGGCG
CATGCCTGGCTGCAAGCAGGGAAGATCTATTACATNTTGCGGCAGAGCGAGCTGGTGGAC
CTCTACATTCAAGGTGGCACAGAACGTGGCCCTGTACACAGGCNACCCCAACCTGGGTGCT
GGAGCTGTTTGAGGCGGCNTGNAGACATCTTCTTCGACGGGGCCTGNGAGCGGGAGAAA
CTGTGTCCTTCTACCGGGACCG

Sequence 2034

GGGGGGGAGGGGNGNAAAAAAAAAGNGANGGACAAANAAANAGAAAAANAAGANANAAGA
AAGNNANAAACANNNNAAAAANACNNNGGNAANCAGAGAAAAGAAAAGAAANNNGNANANA
GAANANNANGAGGGGNCAAGGNAGAAGAAANNNGANAGAAGGGGNNAAGGGGGNCGGG
AGAAAAGAAGNAAAAAAAAAAAAAAAAANNNGAAAAAANGGGAAAAATNNGGGGAAANNNGA
AANNAAGAAAAAANANANCNGNGGNAAAAAAAAAAAGGANNNAANNNNGGNA
ANANGGNNAANGNANANANAAAAAGNGGGGGGGAGGGGGAGGGNAAGGGNNGAAAAAN
NGAAAGAAAAAGAAAGAAANAAANGAANAANAGANGGAGANGNAAGGNAAAAANAANAA
AAAGNNNNNAANAANANGAAAGGGNAAGNAAAANGGGNNNNAAAAAGAAAAAAGNG
GNAAAAAAAAAAANNNGGAAAAAANNNNGGNANNNNANNCAAAAAGAAAAA
AAAAGGGNNNNNAAGGGGAAAAAANAANAANAAAAAANGGGGAGGNGGCGNNGNA
AAAAANGNNNAAAAAAAAAAAAAAAAAANNNAANAANAANANANNNGNAANNNNANAAAA
AAAAAAGAAAGAAANAAGNGGGNNGNAAAAANACNNAANANNGANANGNANAAAAANNGG
AANAANAANAANNAAGNNANAANGAAAAA

Sequence 2035

CCCCCGCGTCCGCGTTTTATGTGTGTATGTACAAAACAAATACCTTTTTGAAATTAC
ATAAGTGATACATGCTTATTGTGAAAGAGTTGGATAATACAATATACTGTAAAGAAGATG
AAACCACTCATAAATCCAACCTGTAAATACTTTCGTGTTTCATTTTTGGCATCTAATG
TATCCTTTATGTATATTTAAATATATATTTTATTCAAGTATAGGATCATGTACCTCCCTG
TTTTATAATTTCTTTTTAATTTTTCAGTGTATTGTGGACATCTTTTCTCATCAACAAA
TACATCCCACAATGTTTATTTTGTGCCTCATTATACCATGGAATAGTGACATCCTAGTA
TGTTTAAGACATTCCTTATTAATGAACAATTAGGCTACTTCCAATTTTAATTATAAAGG
ACATTTTGAAGGACTTCCTTGTACATATTATTCTATTGCTTTATCATCTTTTGGGATAA
TTTCATGTAGTATATTTCCAGTTATTTAAATGAGAAAGTACATGGTTTATAACAAATGGT
ATTTAACGTCCAAGTCACTGCTATCTAAAGGGGTAATTTTAAAGGTATAAAATAATTTGG
CTTATAAAAAATCGTGGGAAAAATATNCTAGAAATATTTAANGATTAACTTCTAAATTGT
AAATTGGCATATTTAATGATAGAATTCAAAAAAAAAAAAAAAAAAAAAA

Sequence 2036

CGCGTCCGGAAGAAATTGTGCACCCTCCCAAACATACAAAGTTTAAAGTTTGGATCTT
TTTCTCAGCAGGTATCAGTTGTAAATAATGAATTAGGGGCCAAAATGCAAAACGAAAAAT
GAAGCAGCTACATGTAGTTAGTAATTTCTAGTTTGAAGTGAATTGAATATTGTGGCTTC
ATATGTATTATTTATATTGTACTTTTTTTCATTATTGATGGTTTGGACTTTAATAAGAGA
AATTCATAGTTTTAATATCCAGAAAGTGAGACAATTTGAACAGTGTATTCTAGAAAA
AATACACTAACTGAACAGAAAGTGAATGCTTATATATATTATGATAGCCTTAAACCTTTT
CCTCTAATGCCTTAACTGTCAAATAATTATAACCTTTTAAAGCATAGGACTATAGTCAGC
ATGCTAGACTGAGAGGTAAACACTGATGCAATTAGAACAGTACTGATGCTGTCAAGTGT

TABLE 1
340/467

TAACACTATGTTTAGCTGTGTTTATGCTATAAAAGTGCAATATTAGACACTAGCTAGTAC
TGCTGCCTCATGTAAC TCCAAAGAAAACAGGATTTTATTAAGTGCATTGAATGTGGCTAT
TTCTCTAAAGTTACTCATATTGNCCTTTGCTTGAATGCAATGCCCGTGCAGATTATGTGG
CTGCTATTTTTATTTCTGGGCATTACTTTNACACCNTAAANGGAGAAGCNAACATTTNC
TTCTTCACTGACTGGCAATGGNCCTTTACTGCAATAGGAAGAAAA

Sequence 2037

CCCCGCGTCCGGCTGGGCTTAAGGGATCTTTCCCAGGTAGCTGGGACTGCAGGCATATGC
CACTGTGCCAGCTGCTCCCTTAGTCTTGACTATGTATTTTTTTTTTTTGGTTGTTTTA
TTAGGATAGAGTCCTAAGAATGGCATTACTGGGTAAATAGGTATGAACATTAGATCTTTA
ATACATACAGTCGAATTACTTTTCATAAAGCCATATACCTTTTATATTCCCACCGATAC
TATCCCTATCACTAAGTATTAACCTATTTTCATCTTTGCCAATATGATCATCCAAAGTGA
GGCAGAGGTTGCAGTGAGCCAAGGTCACACCACTGTGCTCTAGCCTGGGTGCCAGAGTGA
GACTGTGTGTCAAAAGAAAAAAGGGGGGGGTGCCGGGTGCGGTGGCTCACGCCTGTT
ATTCCAGCGCTTTGGGAGGCCGAGGTGGGCGGATCACCTGAGTTTGGGAGTTTGAGACCA
GCCTGACCAACATGGAGAAACCCTGTCTCTACTAAAAATACAAAAT

Sequence 2038

GTCGACCCCGCGTCCCGGACGCGTGGGTGCGCCATGAACAAGTTTTCAAGTATCAGTTGA
TTTATGATATAGGCTTATCCATTTGGTTATAAAATCATATGTTTATTACATAATCATTGA
CAAATAGTTTTCTGTATAATAACTGGCAGAGTAGCTCTAAAACATATGCAAGGAAATAAAT
AAAGAAAAAAGTACAATAAAGAGAGTAAGTCAATTTTTAACAGTTTTGTGAAAAAATA
GAAAATATTTTATGTAGCTTATAGTACATATATTTTTTACAACAGAAGAATCGCATTCT
GATTTTCCATATGGATCATTTCCCTATGTTGCTAGACCAGTACACTGGCAACCTGGTCAT
ACAGCTTTTCTTGCAAGTTGAGGAAGGTCAAACCACAACCTTAAGTACTCCAGATG
ACAGTAACTGACTTGAAGATGGAAAAATATCAAAATAGAACTTTATATTGAAAATCACTG
CTTCCATAGATTGGCATTTTTAGCTATTACTATGACTTATATACTTATACATATAATTT
TGAAAAATACAACTAAAAGATGTATAACATAGCCAAAAGTCTTAAACCATCCATTTTGA
CCACTTGTCTTGCAAGTAGTTTTGACATTTGTAGGTTAATGGATTCCAAATTGGTTTAA
GTGGGCCATCTCATTCTTCACTTTCTGGNAANCCACTCCATAGATTGGCTTTTCTTCAG
GAAAATTAAGNTTCCTTTNCCTTTATTTGGATTGGANGGNCATTGGCCTACTGGAAAAANA
AATATGCCTTTTTAGGGTTAAAAA

Sequence 2039

GTCGACCNCGCATCCGACCACGCGTCCGCCAGACCTCAGTCAACCGGCTGCACCCCACT
TTCCAGCCTGCGCCCCAGATCTGCAGCCTTCGCCCTAGATACACCCGCTGGTGATGAG
GCGCTCCTCGCGTTCTTCCGGGCTCCAGGTGTCCGTGAGCCTCCCTTCGCGCCTGGCCT
CCGGTCTCTGCCTTGCTCGTGCTTCTACCACCACCTTCCCCTCCCAACCCGGTGGATCC
TCTCGTCTCCCCAGTCTCCAGTGCACCGGCTTTCCCTCGTCTCTGCGCAGTCCATCTC
AGCTCATCTCTCCAATTCAATGCCATCATCTCTCCTCACCATCTCTCGGTGCCCTGGAAT
GTTTGCTGTCAAGATGTCCCCTGTGAAACCCACAAACGCTTGCGATTTGGCCTCCTTGTT
TTATTTTGTGTAGTCCATAACGCTTGTACTACCCCTATTACAACACTTATAACTCA
NAANGAAANAGNNNNNNNNNN

Sequence 2040

CGTCCGCGGAGATCCGGCACACTGCGGACCGCTGGCGCGTGTCCCTGGATGTCAACCACT
TCGCCCCGGACGAGCTGACGGTCAAGACCAAGGATGGCGTGGTGGAGATCACCNCAAGC
ACGAGGAGCGGACGAGCATGGCTACATCTCCCGGTGCTTCACGCGGAAATACACGC
TGCCCCCGGTGTGGACCCACCCAAGTTTCTCCTCCCTGTCCCCTGAGGGCACACTGA
CCGTGGAGGGCCCCCATGCCAAGCTAGCCACGCAAGTCCAACGAGATCACCATCCAGTCA
CCTTCGAGTCGCGGGGCCAGCTTGGGGGCCAGAAAGCTGCAAAATCCGATGAGACTGCCG
CCAAGTAAAGCCCCTAGCTTGAGTCGACCCACGCGTCCGATTTAAATATTTGTCCATTG
TTTGTGATTAGGATGTAAGCTTTGTGGAATGTAATTAACCCCTGCTTTACGAAGTCACCAT
ATTATAATAGGAAAAACACTGCCTAGGAGGCAAAGAGATCTGAATTCAGTTCTGATGCT
GCCACTGTGTAAGGAAGTAGTTTTATAAACCATGGGCAAATCATCTTGAGCTTTCTCATC

TABLE 1

341/467

TGTAAGTTAGGGG

Sequence 2041

TCGACCNCGCGTCCGAAAAACCAAAACCTGANTGAGATCTTGGAACCGNTGTGCGCCGGC
CGNNCCTCTCCANGGGACCANCCANCCCCGCGCGGTGGCCGACTGNATAGGCGGGACTG
CGCTTCGAGGCTTAAGGACGNCAGATCGGAGGCATCGTGTGTTGTCTGTGCGGAGAAGCC
AAAANNGTGATTACGTTTATTTGCAAGACCGTTCATGTTGTTTTAGTTTATGTTTNGATATTT
TAAAACCCGATCCTTTGTTACCATGCCCTTAGGTACGAAAAAATAATTGTTTNGATATTT
GGCAGTCACCCAAAAATATCCAAAAAGCCATGAAACAGTANAGGTAAACAAGTANGAAGT
GAAANTAATNTTCGTCCTTTGTTTTCTTTCTGGAGGTGCTCAAAACACCCCTCTCAAAACCA
TTTTTCTCAGCATAGAACCAAGTGTGGNCGGNTANCAGCTAATATTTACNAGGNGAGAA
ACGAACCCCTNGCGATATTTAGTCACCTTTGTTNCCNGGGANACANAAAATNTTGAACAAA
CACATGAGAACTGTCACCGATCTCTGTATTGATNACCANGGATACCCGTGAATTTTATGT
AATATTAATCTNNGGNAGGCANGANTNTTTNNTAGGTATTTGCCTTTTCCAAGGTGCNCT
TTCCNTACCAAAGGAAAAANGGTTATTTTAAAACTTTTACCANAANAAGGGGATGNCTT
ATTTTTTGGTCCT

Sequence 2042

NGGACTTGGTTTTGAACGCGTTTTCCCAAAGTTTATGTGTTGGAACTTGACCCCAATG
CAGCAGTGTTGGAAGGTGCCTACTAGGTGGTGTCTGGGTGATGGGGGTATGACCCTCATG
GATGGATAAATGCCATGACTGAGGCGGTGGGCTCCTTATAAAAAGTATGAGTTTGGGTGAA
ACCTCGTCTCTACTAAAAATACAAAAATTAGCTGGGTGTGGTGGCACATACCTGTAATCC
CAGCTACTCGGGAGGCTGAGGCAGAATGGCTTGAACCAGGGAGTCGGAGGTTGCGGTGAG
CAGAGATCGCACTGCCTCCAGCCTGATGACGGAGCAAGACTCCGTCTCAAAAAAAA
AAAAAAAAAAAAAA

Sequence 2043

GAGAAGCCTGGGGGTCTGGCTGAAGTGGGCTGGGTGAAGGGGGCCCCCTGACCCCTTG
GGGTCCGGGCTGGGCTGGGTGAGGGGCGGTTTCCGACCCCAAGCCAGGTTCCAGGCAGG
ATGAGCTGGGGTTGGGGTGGCTAGGCCGTGGGCCCTTGGGAGCTGGGCAGTCTGGGCTGGG
CTGGGCTGGGCAGGGCGCCACATGGAAGCTGGAGGAGCAACGGGAGCGCTGGGCGTGGGG
TGCAATTGCCAGTGCCCTTCTGTTTCCAGGCAGCTCTGTGGCCATGGATATGTTCCAG
AAGGTAGAGAAGATCGGAGAGGGCACCTATGGGGTGGTGTACAAGGCCAAGAACAGGGAG
ACAGGGCAGCTGGTGGCCCTGAAGAAGATCAGACTGGATTTGGAGATGGAGGGGGGTCCC
AAGCACTGCCATCAGGGAGATCTCGCTGCTCAAGGAACTGAAGCACCCCAACA

Sequence 2044

ACACTCATCAATTAGGTTTTATTTTTATTTCTTCTCTACCCCAAGAAACAAGCCTGTT
AATTTTTTTCTTCTCCTCTGGCGACTGTGTGATGAATCCTTTCTTGCCTGATCAGGTT
GCGGATAGACTTGTAAAGGTGTTTGTGCTGCATACAGTGTAAAGCATTGTGACCGCCAATAAA
CTTCAATGGTTTCTACTGAAAAAAAAAAAAAAAAAAGGACGCGTCTACTTCCCACTG
GGTCCCTCCCAACACATGGAATTCAAGATGAGATCTGAGTGGGGACACAGCCAAACC
AAATCAAAGGATATACAAAATAACCAGAAAACAATGAACAAAATGACAGGAATAAGTTC
TCACCTATCAATAATACTTTGAATATGTGTTAAATTACCTACCTAAAAGATAGAGACAG
GCTTAATGGATAAAAAATGACTCAACAACCGTCTACAAGAACTCACTTCACTTGTAAG
ACACACACAGACTGAAAGTGAAGGGATTGAA

Sequence 2045

GCCNCGCGTCCGTGAGAATACACAAGGGGGGACGCTTCCAGTAGATGTGTTGGGGAAGGA
GGAGGGCAGAGGGGACAGGGGACAGGATTGAGCTTTGTGGTGGGTCTGAGGGTTCTCTAC
CAGGGGTAGCCAGGATCTGGGAAACAGATCAGCGACTCTAGTCTGAAGTGGCTGCCTGGT
TCGGGGGCTGCCTTCAGCAAGATTGAGGCAGGAGAGACGGAAATAGCCACCTTCCAGGCG
TGAGTCCTGGAGATAAAAAATGGATTTTAACTAGGACTGCCGGGAGCTGGCCCTCCGCGG
CTGCTCAGACTAGGGCTGTGTGTGCTGGCTCTCGCCTGTTTCCGGTGTCTAACTGGCTTG
TTTCTCTTATGGCTTGGCTTATTCCGACCTGGGGTGGGGCCACATNCAACCCACTGCC
CACTGGCTGTCCGTCTGGCCTGCCCCGCGGTTTCAACCACANTGGTGAAACAANCCTTG

TABLE 1

342/467

CAAGATNTACAACTCGCAACACCGGGTCAAGCAATCAGCTGCATTCCGGACCGGTGTGNA
AGACCGAAGGGG

Sequence 2046

CCCCCGAATATCTTATCCTTAACATTAAATTGAATTTTTTGCAAATGATCAAAAGGTCA
TTCCGAGTAAATTCTGTTGTATAGTGCAGATGATCAAGCTGAGTATTTGCCATGTTTTTA
TTTTAGAAAAGAGATGTTGCTATAACATAAGTAAATACGATTCTCGTATGTGGCAGATAA
ATTTACTTGTAATCTGCTCTAGAGTGAAATTATTTTTTACATATAAGCATTGTCATCATT
CTAAGGATTATTGAATAATGAATATAAAATGTTCTTGTGTATTTGTGTATGTGTATATAA
TTTTTGAAGTTTCTTTATCCTATTGACCCCTTCTCATAAACAGNAGCATATATATATTA
TATGTAGTAGAATTTATATAGGAACATTGTCTTTTCCCAGTAATGCTGATTCTAAACTA
GTTATGTCAATTTTCATGTAACATGACATTNAGAATAGTGGGGTGCTAAATATATTTAGAA
ATGATTTCCAAAATTGNTGTATTTCTAACATAGAANGATATTTGTCATTTTAAAAATAATG
TAAAGAAAAAATGC

Sequence 2047

GCACCCCTCCCTGTTGACACAGCCTGGATCCAGAGTTCAGCAGACCTTGAGACAATGAAA
ACAACTTAGTAATAATCATTTTTCAATCATTGCAGTAATTATTGATTTGGACAAAAATC
AATTGACGTCAAAACCTTAAAGTGACGTTTCTCTGCCTATGGAGTGGGTCATTCTTTTAT
TCCTTTAGTTTCATAATAAATTTTCTTTACTTAAAAAACTTATAGTTTGATGAAGAGT
GAGATATATACCTCATCTCAAAGAATCTTCACACACACACTTATTAATTACAAAAGGAAA
ATCAGTAATTTTGCAGTGGAGACATATGGCCAACCTCCACCTTACCCAAGTGGCTGAAAGT
CACTGCACCAGTAATGG

Sequence 2048

AGAAAAGCCNAGCCAACAGCTCTTAAATCAGAAAAACAANGGGAGTCCTTCCTTGTCT
CNTCTGTGNTCNCNGGCCTTGTCTCTGAGACTNTCTGTGCCCNNAANCNNTNTNNTNGCT
NTNANCTGATTCTANTTTTGNTNCCCAGTGAATCTGTCCTAAGACTGGGGNTTTTGNCA
NATGACAGNCTTGCCNGNACNCAAATATCATAACAGCATTNNNNANCGANTTTTGCNGAT
CAAGTAANATANTTGCNTGACAATGACAGCTTTTAACTCTTCAAAGTCACCTAAAAGC
TATTATTGCAGGAGGATTTANGAAGTCACATTCATTNAACACCCAAGTGCTATGGGTGAA
NNATTCATGATAGCTTGGCCCAAGGTCATGAATTGAGGAGGGAATCTTGCTTTTCAA
AAANCAATGGAATGNTCCCNCCACTGAAAAAGGGNNATACGTTTTAATTTTTGGACCCCT
TCANAAAGGNTAANGAAAAAAACCCANGGTTCTTTCNAAAAAGTTAGNGAATAAGGGGGA
ACTTAANTTTTCATGGAANACAAGCCCATTNTTTNAAAAAAAAAAAAAAAAAAAA

Sequence 2049

CNTACGAACGTCTGAAACGTGGAGGAACCTTCAGTTCTGGGAACTCCCTGCCCCTTTCCC
GGAAAATTTCATGAGTAATCCACCTGTTTAGCATATAATCAAGAAGTAACCATAGGCATAG
TATATCAAGCAGCCCCACACTGCTGCTTGGCCTATGGGGTAGCCACTTTTATTCTTTACT
TTTTATTAACTTGCTTTCACTTAAAAAAAAAAAAAAAAAAAA

Sequence 2050

CGCNTCCGAAATCCAATCCTAATGAAAGAGATTGATAAGTGTGACTACAAAAGGTTTAAA
ACTTTTTTCATAGCAAATTATCTCAGAACTAAATTAAGACAAGGGAGACCAGGTGCA
GTGGCTCACGCTGTAATCCAGCACTTTGGGAGGCCGAGGGAGGTGCATTGTTCTAGCCC
AGGAGTTCGAGACCAGCCTGGGCAACATGGTGAAGCCCTGTCTCTACCCAAAATACAAAA
ATTAGCCAGGCGTGGTGGCTTATGCCTGCAGTCCCAGCTACTTGGGAGGCTGAGGTAAGA
GGATGGCTTGAGCCCAGGAAATCAAGGGTGCAGTGAGCTGCNATTATGATTGTGCCACTG
CACTCTAGCCTGCATGTCCAAGTGAATCCTACATNAAAATAAAAAGTNCAAAAANANAAA
AAATGTGCCGGCCCGCTAGACTAGTNT

Sequence 2051

CCACGCCTCCGGAAATGCCTCTCTCCAGAGTCGGACCCCTCACCTCCTTCCTGGAAGTGCC
TTTGGCCCCAGAACCATGAGACAATCCCCACCCTGAGAAGCTNCGATCACTGGGAGGAGA
GAGAAAGCCTCCAGCTTTGGGATTCAAGGCTTCAGAAGTTTTAGCAGCCTTTGCTCATTG
GAGAGGTGGGGAGGATAAGTCTATAAGGAATCCTATTTCCCAGCTCTCCACAGAGAGG

TABLE 1
343/467

ACAAAAGAAGTCTTCACACCGTTGTGGAACCTTCCTGCAACTTCTGGATGCAGACAAGCC
TCAGAGCAGACTGTTCTGGCTCCAGNGAATATCGGCTGCCAAGCTGTGAGCATCCAGGGA
TCCNCGTCTGCCTGGCTTTCCTGAAAGTCAGAAGGCGCCTTGGTCATACTGTGTGGGGTG
NGTNGGATNTTNAGTTNTGNTCTCTTTTCTTTTCTTTTNTTAACAGCTTGGCGGAGTA
GCCAACACCCCTGACAGCAATTGTGCNGCACTTGGCTTAATTCACACCCTATGAATAATT
TTTNATATTTCAACTTGGAAGGTGGTTAAGAACTTTT

Sequence 2052

GATGGACTGTGTCAATNCAGGACGGCCCTGCTGCATTGGCACCAAGGGCAGGTGTGAGATC
ACCTCCCGGGAGTACTGTGACTTCATGAGGGGCTACTTCCATGAGGAGGCCACGCTCTGC
TCTCAGGTAGGTCTGCAGAGTGTCCGTCGTTCCCTCCCCCAGCTACTGTGATGCTGATA
TGCTGCTCTGCGCAGGTGCACTGCATGGATGATGTGTGTGGGCTCCTGCCTTTTCTCAAC
CCCGAGGTGCCTGACCAGTTCTACCGCCTGTGGCTATCCCTCTTCTGCACGCCGGGATC
TTGCACTGCCTGGTGTCCATCTGCTTCCAGATGACTGTCTGCGGGACCTGGAGAAGCTG
GCAGGCTGGCACCGCATAGCCATCATCTACCTGCTGAGTGGTGTACCGGCAACCTGGCC
AGTGCCATCTTCTGCCATACCGAG

Sequence 2053

NCGCNTCCGGGCAGAGCCCCGGAGCCTGGCCAGCCCTTCCGGCAGCTCCAAAGCCACAG
GCAAGCCCCGAGGCTGGGATGGCCGGCCAGGAGGGAGGAGGACGACGTACCTCCCGAGG
AGAAGAGGCTGCGGCTGGGGCTGGAAGGGGGAAGCGCACAGCCCGAGGACTGCNAAGGAC
GGGGAGGACGCGCCGCGGCCAGGCAGGGAGGAGACCGGCACCCAGACAGGTGGCGACGGC
AGAGGAACACAGTGGCTCACGCCTGTAATCCAGCACTTTGGCAGGTGAGGCTGGCGGA
TCGCCTGGGGTCAGGAGTTCGAGACCAGGCTGGCCAACATGGCGAACTGTCTCTGCTAA
AAATACGGAAGTTGGCTGGGAGTGATGGCACGCACCTGTAATCCAGCTGCTTGGGAAGC
TGAGGCAGGAGAATCGTTTGAAGCGGGGAAAGCGAGGTTTGCAGTCAGCTTGAGATCACA
CCACTGCACTTCANCCACCTGGGGTGACATGAGCGACACTTCTGTTTTCAAAAATAAACC
GAA

Sequence 2054

CTGTGTAGGACAGACTCTCTTTGACTCCCTAGGATTTACCCAGTGCCCTAGCATGTTTCA
CAGCTTAGAGGAAAAACAACATTTGTTGACTGACTTTTGATCTCCATTTTTTGGTGAGATG
CAGTGGCTTACACCTGTAATCCAGCACTTTGGGAGGCTGAAGCGGGCGGATTACTTGAG
GCTAGGAATTCAGATCAGCCTGGACAACATGGCAAAAAATACCAAAAAATAAAAAAAT
AAATAAATAAAAAATTTAGCCAGACATGGTGGCAGGCACCTGTGGTCCCAGCTACTTGGG
AAGCCAAATCGCTTAAACCTATGAGGTGGGAGGTTGCAGTGAGCCAAGATTGCACCACTG
CACTCCAGCCTTGGTGACAGAGTGAGACCCTGCCTCAAAAAAAAAAAAAAAAAAAAAA

Sequence 2055

TCGACCCCGCGTCCGGGAATTTGGGGTGGAAATGTGATGAGATTAAATGTAGCTTTGGTA
TAACTTCATGTGTATTTCAAAATATACTGAACGTCAACATGATTTGAATAAAGAAAATGT
ATTTTCTACTTGAACCACATAACACTGTTATTTAAACAGTTTTCTGCAGTCTAAAAAAA
AAAAAAAAAANNAACAANNAATN

Sequence 2056

CGTCCGGCAGAATGGCTCCCGCAAAGAAGGGTGGCGAGAAGAAAANGGGCCGTTCTGCCA
TCAACGAAGTGGTAACCCGAGANTNCAACATCAACATTCACAAGCGCATCCATGGAGTGG
GCTTCAAGAAGCCGTGCACCTCGGGCACTCAAAGAGATTCGGAATTTGCCATGAAGGAG
ATGGGAATCCAGATGTGCGCATTGACACCNAGGCTCAACAAAGCTGTCTGGGCCAAAGG
AATAAAGGAATGTGCCATTCCCGAATTCGCTGTGCGGGTTGTCCAGANAACCGTAAATGA
GGGATGGAAGATTACCAAAATTAAGCTATATNCCTTTGGNTNCCCTATGTACCTGGNTA
CCACTTTNAAAAAANTTTACCAGACCAGGTCCAATGGNNGGGATGGAGAACCTAAATCGNT
TGNTCGGCCGGANTCAAAATTAAGGTTNTTAAATTTGCCAAAAAAAAAAAAAAAAAAAA

Sequence 2057

CGCNTCCGGAGAGAGCCAGGGATGCCTTATGGTCAGAACAATTTATAGACAACAAAAG
GGAAGTGACCGTGCAGAAATCAGAAGTGAGGTACAGAAACAGCTGGACTGATTACAGCTC

TABLE 1
344/467

AACATTTGCCTTTTTTGAACAAATCTGAACACTCAGCAGTGTATGAGTGGTTGACCGTAT
NGGCTGCTGTGATTGGCCAGACCTCAGCTATTGTTACAGGCACATACTCTTAAGTCAGGT
TTTCAATCCTATCTGACTATAAAGTTAGGTTACAGTTTGTCTCATGGACTCAAATTTAG
AAGTATGGCGTCCTTCTCAGGCCATATTTAGTTTCAAGTGCATATGGCTTCTG
ACAAAGGTGTGGCCCCCTTAGGACTCCAAAGACGCTGTCACCTACATGGTATTGAGGGAA
GACACAGAGGATCTGTGAGCAGCCTGCAGCCAAAGCTTTTGAGATCATATTGAGATTTTT
TTGTANTATANGAGGAGGGGTTCTGGCTC

Sequence 2058

CGGAAGCATCGACCTGCGAGCTCACAGAGCTGGGAGCAGAGCACCCACGCACACCCCGAA
TGGCTATGGAAGCTGCAGGGCGCCAGGGACACTGGGAGTCCCTGCTCTCATGGCAAAGCA
GGGACGGGGGACTTAAAAGCCACCAACAGGAAAATCGGGGAAAAAAGGGAAGATGGTGGT
AACAGTTGGACACTATTTCTTGGCAAAACCGTGGAAAAACACGTTCTACACCAGCAGGTG
GCAAATTGTGGCCGCCATCTGTGTTTGCAAATAAAGTTTA

Sequence 2059

CCCCTACAATGAGCTGTCCCGCCTCAGTGGCCTGCGAACCCCTCAACCTCCACAACAACCT
CATCTCCTCCGAAGCCCTGCCTGACGAGGCCTTCGAGTCCCTCACCCAGCTGCAGCACCT
CTGCGNGGCTCACACAAGCTCTCAGTGGCCCTCAGTTACTGCCCCCGTCCCTCCGNGT
CGCGGATCTGGCTGNCAACCAAGT

Sequence 2060

ACCCACGCGTCCGCCGATTTTCCAGGTGCCGTCTGTCACCCCTTTCTTTGACTNGGAAAG
GGAACCTCCCTGACCCCTTGCACTTNCAGAGTGAGGCAATGCCTCGCCCTGCTTCAGCTCG
CACATGGTGC GCGCACCCACTGACCTGCGCCCACTGTCTGGCACTCCGTAGTGAGATGAA
CCCGNTACCTCAGATGGAAATGCAGAAATCACCCATCTTCTGCGTCACTCAAGCTGGGAG
CTGTAGACCGGAGCTGTTCTATTGCGCCATCTTGGCTCCTCCGCTCTATTTGCAGTTCT
TAAAGGGCTATTGTACTCTCTGGGATTGTACGAACCTTGGACTGNATTGGAAGTCAACAG
AAAATCTTCCAGGCAAGTGCCA

Sequence 2061

CCCTTTGAGCGGCCCGCCCGGGCAGGTAATTCATTGAGTGTACGAGGGAAAAAGCAT
GTATTGGGCCACCGGAAGACAAGCTAATAAATAGGCTGGAAGTAATATTCTACCAGCAGG
AACTCAACAGCTCCAGTTAAATGCTTTGATATAGNGGCTCCTTTCAGAGCCAAAACAAG
ATTTATTAATTTCTTCAAACCTGTTTATCTTTAAACAAATATAAGGTTTTAATTATAC
TGCTGAAGCAAAATGTGAATGCCAAAGACTATGTTTTGCAGTTTTGCTTTCCTCCCAATAA
ATATTAATGTATGTAATTCTAGAGGGTAAAAATGTAATAGGTTTGGACAATATTTGCAC
CCTTGTTTGTGTTATGAAAAAATTTTTCCAAGGCGAGCTAGAGAGAAAGATGTTTGGCA
TGCCAAATTAACCTGCATGTTTGTAAAAAACAACACATGTTTTTGAAAAGAAACCAG
ATCTGAACGTGTATTTGTTGAAGTTTTGCAAAA

Sequence 2062

CCCTTTGAGCGNCCGCCCGGGCAGGNACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TT
TTTTAAAAAAAANNAANNNNTNNNTTTTTTNGGCCNTTNNTTNAANNNAANCNNNT
TTNTTTNGGGNTTNNNTNAAAAAANNANNNNAANCCCNCCNGNNNTTTTAGGGNAAA
AAAAANTTTTNCNGGNTNAAAAAATNNNTTTTGGNTNCCAAAANNTNNGNNAAAAA
ANNAANNANCCNNNTTTTTTNNNNNGGGGNCNCCCCTTTTTTTNCCNTGGNGGGGNG
GGGNAAAAAGGGGNTTTTTTNGGANCCGAAAAAAACGGGAAANTTATCCCTTTTTTGN
GGGGCCNTAAACTTTTTTTTNNCCNCCNTTNTTTTTTAAAAANCCCCCNCCCTTTNTCC
CTGNTGGNNCCCTTTTGGCCCGGGGAAACCNNTTTTTTTTTTTTTTTTTT

Sequence 2063

AAGGGAAAAATGTCACGTANACTAGATCAGGGAACAAAATCCTCTCCTTGTTGGAATATCC
NATGCAGNNNGNTGATACAACTTANTATCTTATTGCCTAANAAAAAATTTCTTATCATT
GTTTCANAAAAGCAAAATCATGGAAAAATTTTGTGTCCAGGCAAAATAAAGGTCAATNT
AATTTAGCTGCAATTTAGTGTCTCACTAGGTGGCATTAAATGTCCCCTGATGTCAT

TABLE 1
345/467

TAAGCACCATCCAAAAAGTCTGCTTCATAATCTATTTTCAAGACTTGGTGATTCTGANAG
TTTTGGTTTTTNGACTTTGTNTCTCANGAAAAAANATTCCTACTTAAATTTAAGTC
TATAATTCAATTTAAATATGNTGNGGCGTCTCATCCAGGATNGGATAGGTTGTCTTCTAT
TTTCCATTTTACCTATTTAC

Sequence 2064

CCCTTCGAGCGNNCGCCNNNCAGGTACAGACTTAGAAATTATCTAAAGATTTCATCTT
TTTACCTCATATTTCTTAGGAATTTAATGGTTATATGTTGTCTTTTTTTCCTATGTCTTT
TGGCTCAAGCAACATGTATATCAGTGTTGACTTTTTCTTTCTTAGATCTAGTTTAAAAAA
AAAACCACATAACAATTTCTTGAAGAAAGGAAGGGATTAAATAATTTTTTCCCTAACAC
TTTCTTGAAGGTGAGGGGCTTTATCTATGAAAAAGTAGTAAATAAGTTCTTTGTAACCTG
TGTGAAGCAGCAGCCAGCCTTAAAGTAGTCCATTCTTGCTAATGGTTAGAACAGTGAATA
CTAAGTGGAATTGTTTGGGCTGCTTTTAAAGTTTCTTAAATCAAATTAATAAGATGATA
GAATTCAGAACTTGGTACATGTATTACTTGGTGGTATCGATAATCATTAAAAAGTAAAA
GACTCTGTCATGCATTTTTCCCATTTCTTTTTTTTCCCTGTCTCCGGGGCCAACCCAA
GTGGGTCTTCATTTT

Sequence 2065

CCCTTAGCGTGGTCGCGGCCGAGGTACNCGNGTCCAAGATGGCGGATGAAGCCACGCGA
CGTGTTGTGTCTGAGATCCCGGTGCTGAANACTAACGCCGACCCCGAGATCGTGAGTTG
TGGGTGCAGCGACTGAAGGAGGAATATCAGTCCCTTATCCGGTATGTGGAGAACAACAAG
AATGCTGACAACGATTGGTTCCGACTGGAGTCCAACAAGGAAGGAAGTCCGGTGGTTTGA
AAATAACATCTGGGCCTGCTGGAGAAAAAGAAAGATTACAACTTCGTTGCATATGACTA
CCGTAAAAAACAAGAATACCTCAAAGCTCTTCGGAAGAAGGCTCTTGAAAAAATCCAGA
TGAATTCTACTACAAAATGACTCGNGTTAACTCCAGGATGGAGTACTTTAATTTTTTTT
TNTTNATANTTNCCAGGAACATTTTCTAATTATGTTATATAAATGGGTATGTGATATGTG
NGCTATTTGTGTGCTAATGTCCTAAGTGAAGTTCTGCAGACCATCTGGGTCAAAGTGCAT
TTCGCATGATCCAAAANATGAAGAACCCTTGTTTGTACGGGAGACNAGGGAAAAAAA
A

Sequence 2066

CTTAGCGAGGTCACGNNCNANGAACGCGGGGNGNTCAGGAAGATNTCTGAAGAGTGCAGC
NGCCTGAACCGAGCCCTGCCNAACAGCTGACAATTGCACTGCAACCATGAGTGA

Sequence 2067

CATGCAGAANTCCTCGCTGGAGTTTCATAAGGCCAATGAGTGCCAGGAGCGCCCTGTTGA
GTGTAAGTTCTGCAAACCTGGACATGCAGCTCANCAAGCTGGAGCTCCACGAGTCCACTG
TGGCAGCCGGACAGAGCTCTGCCAAGGCTGTGGCCAGTTCATCATGCACCGCATGCTCGC
CCAGCACAGAGATGTCTGTGCGGAGTGAACAGGCCCNCTCGGGAAAGGGGAAAGAATTTT
ANGCTCCTGAAAGGGAAATCTACTGTCATTATTGCAACCAAATGATTCCAGAAAATAAGT
ATTTCCACCATATGGGATTCCCAGACCATGANGCCAAAGTAATTCCTAATCCCCACACAC
AGGAATGGCATGGGACCTGNGATTTTGAGTTTTCAAGGGGCCGTAAGNTTTTNTTCTTC
ACACCTNCAAATTACCCGACCCCAAAAAAANAAAAA

Sequence 2068

CCCTTAGCGTGGTCGCGGCCGAGGTACTTNTCCGATTTCAAGAACTGATGAAATTAGAAA
AAACACCTACAGAACATTGGATAGCCTGGAGCAGACCATTAAACAGCTCGAAAATACAAT
CAGTGAAATGAGTCCCAAAGCCCTAGNTGATACCTNATGTTCTTCCAACAGAGATTCTGN
AGCAAGTTCATCCACATAGCCCAAGAGGCCCTCTCCCGACCCCTTGCTAGTTNCGGATGA
AGGTNCCACTGCCCTAGAGCCCCCTACGTCGATACCTTCAGCTTCACGTAAGGGCTCCAG
CGGGGCCCCACAGACGAGCAGGATGCCTGTCCCATGAGTGCCAAGAACAGACCCGGAAC
CCTGGACAAACCCGGCAAGCAGTCCAACTGCAAGAACCNCGCCAATATCGNCAGGGCTA
ATGGAANTNCTAAGAAATCTTGGNNGGGGACTNTTAAAGCCTACTTCCCCTACTTACCT
GCTTCTAAAGATTCCAAGGCCNTTCTTCAAACCTTTTGGG

Sequence 2069

CCCTTCGAGCGGCCGCCCGGGCAGGTTTCATGGATNNGAGCAGCTTCACCAACCCCTGCA

TABLE 1

346/467

AAGTGA CTCTGAAGAAGACGACAAGCCCTGCTCCAGTCACACCCGGAAGCTGACTGGTCC
ACGCACAGCTGAAGCATGAGGAACTCATCGCGGACTAATTTTCCTTAAAATTTANACT
TGCACAGTAAGGACTTCAACTGACCTTCCTNAGACTGAGAAGTGTTCAGTATATACAT
CAAGTCACTGAGAGAACATCACCACCCTGAAGCCAGAGACTAACACTGCAGGACTCAGCA
GGACTATTTAAGAAACAAGTGAAGCATCAGACCAACTTTCCCAAGTCTCGGATCTT
TCCTGCCATGCTGATGCCATATATCCAACGTGATCAACCTGGCTCCCAAGAGGAGAC
GACTTTGCTGTCTACACCAACATGCCCCCTTTTCATCACCCCAAGAGGACATTGCCAGAC
CAAGTGGGAATATGTCTTCCATTGTATTTCCAAGTATGGGGAAAGCCTANATGAAGATG
CTCAAGAAGNGGGGGGTCAAGACCCTGACCCAGCAGTGAATCTTGGCATTACCCTTGC
TTTAAATTTAATGTGGTGGNGNTTTAAAAAAAAAAAAA

Sequence 2070

CCCTTTGAGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTCNGCGGGG
NGNNCTACTTNANAATCTTTGGCNGGTTTNNCNGTTTTNGGTTTTCTNANCNCTTGGNCT
GGTNCATTTGGTTTNGAANAATCNGTTNCTTCNGATTTTTNANCAAANGGTTTTTNGNCA
AANGGTTTTNGAAANCTTTNNCCTTCTTCNGTNGAAGTNGTGGGTTTTTANANANAAA
AATTGGGGTTNATCATTTTTTCTAGGCCNGAANGTTTNGNNCNTNCCTNTTTCANAATCT
ANATTAATAC

Sequence 2071

CCCTTTGAGCGGCCGCCCGGGCAGGTNCNGGTTANCAGACCCACAACACGAAGCTCCTG
CCTTTTAAGACTACAAAGAGGCAGCTCAAAATTAGACTGCACAGGTAAGCGAGGAAGTGC
AGTCTAAGCCTGGACTCTGCCTTCTGCCCTCCCCCGCGTACTCAAGCAATAAAAT

Sequence 2072

CCCTTTGAGCGGCCGCCCGGGCAGGTNCNTTTTTTTTTTTTTTTTNGCNGAGTGAGCTA
CTNTAGGATCTTNTGCTGGTTNTACAGTTTTTGGTTTTCTTAGCACTTTGTCTTGTTCAT
TNNGNTTNGAAGAATCTGNTTCTTCTGATTTTTTAACANAAGTTTTTGAACAAATGGTT
TTTGAACCTTTTACCTTCTTCTGTTGAAGTTGTTGGTTTTTGAAGAGAAAAATTNGT
GTTTATCATTTTTTCTAGGTCTGAAAGTTTTGCGCATTCCTCTTTCAGAAATCTAGATTAA
TAACTAAAAATCTTAAACTTGNTTTTTGAAGAATTTTACTCTTCTGACAAATCTTCGA
TAAACTTTTCTCAGATTTTAAAGTTAGCTAAAAACAAAANTTCTTGTTTNGTTTTNTAA
TNTCGAATGCTNACTCTGTATCTTTCAAGTTTTNCAATTTTTTCGATGTCTTAGCATCAA
AACAGATTTTAAACGTCTTCAAATTACTTTTAAATCTGTTCTGCAGCTAAAAACNGTC

Sequence 2073

CCCTTAGCGTGGTCNCGGCCGAGGTACGTGCTTATACAAGATGTCAATTATGTGGTCGTC
CACATGCTGTATTACGTAAATTTAAAATTTGTAGAATTTGCTTCCGTGAAGTACGTACA
AAGGACAAATACCAGGTATTAAGAAAGCGAGTTGATAATATGATAATCACAGATCCAATA
GCAGATATGATCACAAGAATCAAAAATGCCCTTACACGTAACACAAAAATGTTATTATT
CCTCATTCTAAGAAAAAGAAAGAATCTTACAAATCTTCTTAGATGAAGGATATATAAAA
GGATTTACTGTATCTGGTGAAGTTAAAAAGAAATTAATGTTGAGCTTAAATACAAAGGA
AATACAAGTTCAATTGNTGGAATTAAGAGTTTCCAAGC

Sequence 2074

CCCTTTGAGCGGNCGCCCGGGCAGGTGGGCAGGTACTTCAGCAAGTCTCTTCTCCTC
AGCAGTAAGCTCAGCCGGCAGGTGCCTGACCAGAAGGGTTCGGTCGCCCCGAGGCGGGGA
AAGCGAGGAGGAGCTCGTGCATCCCCCTTGATATCGCAAGCGGCTGCTCGGGAGCTGCCAT
TTCTCTTGAGAAGCAAAAACAGAAATCGTGGAAGAAGTCTCAGTCAAAATCGCGGCAT
CAACACAAGCTGGGAGAAATTTTTTTCCGCCTCGCGCTAAGGATTCTGGAAACCAGGAA
ATACCGAGAAAGAAAGTCACCTTCTCGCGAGAAGTGCGCCACCGAAAAGCGGCAACCTT
CGAAGACTCTTGGGGGAAGGGCGCGGTGCTAATGATTTAAATTCAGGGGTCTNCGGAA
AGACTTACAAAGCCAAAATTTGGCCCAAGATGTGCGANGGTTAACACAAGTTGTCAAT
CAAAGAAAGGAACAGGAACCCCAACCCCTTTAAGGA

Sequence 2075

TABLE 1

347/467

CCGCCCCGGGCAGGTACAAATTGAGCTCTCTATTTCATAACCTCAATGTATGTATTCTGCC
CATTAAATATACTTTGCACCAGCAAAAGCGATTTCCAACATATGTGTTTTGGAGGTAATTA
AGTAACTCTGTATAAAAAATAAATGCACTTTTCCCTCCTTTCCCCAGTGAATGGAAACTT
CCATACTTTCAAATAATAATAAAAAAATAATTTTTAAGAGCAACAGCCCTCAACTCTTT
GCTGGTGCCTGCCATACTGCCTTTCTTCACTCCATTCTTAGCTCTGCTAGTTTCTTCTTG
TATGTCATGATAAAAAGGGAATGTGGGTGTGTAACTTTTGTGTATGTCCCGTTTCCAAAT
TTCCCTCTCCAAAAGCCAACCAAATAAACAAACAAACGAAAAAACAGTGCAACA
AAACACAAATAGCATTCCAACAGTT

Sequence 2076

TTTCGAGCGGCCCGCCCGGGCAGGCACATAAAACATTATTCCTTCCTTGGCCTAAAACTC
ATCGCCACCTACATTAAAGCTAATATGCCTGATTACTGTTTTAGAGAACTTATTTTATT
AGGGCAGTTCCAAGCTCAAAAATACGCTAACTGGCACCTTGTTAGCTACATAAAAATGCA
CCCTAGACCCGAACTTACTAGACTCATTATAAAATTTTCTTTAAGGTGTCCACGCAGTC
CCTGGTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTACCCAGTAATCCCCAGAAG
GAACTTACACTTTTTTTTAACTCTTTTCTTACAACCTTCATATTTTATAAATAAAAAGACAA
AAATGTCAGGCCTGTGAGCTGAAGCTTAGCCATTGTAACCCCTGTGACCTGCACATATCC
GTCCAGGTGGCCTGCAGGAGCCAAGAAGTCTGGGAGCAGCCCGAAAAACCACAAAGAAGT
GAAACAAGCCAGTTCCTGCCTTAACCTAATTAACCCACCTTACGACATTCCACCATTATGA
CTTGTCACCACTTATGACTTGTTCTGCCCTGCCCAACT

Sequence 2077

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTTTANGTCANAGTCTTCTNNTCTNNTCTNNTGA
GATGGAGTCTTGCTCTGTTGCCAGACTGGAGTGCAGTGGTGGCATCTGGGCTCACTGCAA
TCTCCACCTCCCGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGTAACTGGGACTAC
AGGGTGCAGCGCCACCAAGCCCAGCTCATTTTNGTATTTATAGTAGAGATGGGGTTTCACG
ATGTTGGCTAGGGATGGGTCTCGATCTNNGGTGAGAGTCTNNTNCTGTAAATATCCTT
GGGTAAGAAAGCAATTTTANACTGTAACTGATGNCAANATGCTTTAAGGGAAGAAGGC
N

Sequence 2078

TCCCTTNCTTTCTCGCACGTTTCGGCCGGCTTTTNCCCGTCAAGCTCTAAAATCGGGGGGG
CTCCCTTTAGGGGTTCCGAATTTAAGTGGCTTTACGGGAACCTTCGAACCCCAAAAAA

Sequence 2079

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTNCAGGGTCTGTCAGAACTGTTGGAATCTTACA
TAAAGTCAAGTCTCAGAAATGTCCGATGCTTCACCATATTCTTATATTCTATGCAATTGT
TGTCTGTGCACTAATCATCTCGACCTTCTACATGAGATACAGAATTAATACTCTGGAGGA
GCAGCTGGGGTTACTAACCTCCATTGTGGACACCCATAATACTGAACAGGCAGCACCATC
TGGCCTGAGTACACAAGTACCTCGGCCGCGACCACGCTAAGGG

Sequence 2080

ACCNTATAACGGCCGCGAGTGTGCTGGAATTCGCCCTTTTCGAGCGGCCCGCCCGGNCAGGTA
CGCGGGGNTGGTTCCAACTTTTCTGCTNATCTGGGAGGTGNTGGGCGCGGACAGTCNAGA
TGTCAGAGAAAAAGCAGCCGGTANACTTAGGTCTGTTAGAGGAAGACGACGAGTTTGAAG
AGTTCCCTGCCGAAGACTGGGCTGGCTTAGATGAAGATGAAGGATGCACATGTNCTGGGA
GGATAATTGGGATGAATGACAATGTAGAGGGATGACTTCTCTAATCAGTTAACTGAGCTG
AAACTAGAGAAACATGGGTTATAAGATGGGAGACTTCATAGCCATCCAGAAGAAGTGCTG
AAGTAAACCTAAAACCTTGACCCTGCTNAAATACATTGTAGGGGCAAGAAGAACCAAGGA
ATGGGGACACT

Sequence 2081

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTACGCGGGGNAAGTGTGCGCGCCGCCACTGTCCG
GCCACAGCCTAACGCTCTTNGCTGTCTGTTTNGGNTCTCGCGCAGGGCGGCCCGGNTCTG
GTGTTTGGCNGTCGGAATTAACAACCACCATGTCCGAGCAAAAAGGCAAAGACCAAGAC
CACCATAGAAGCGCCCTTAGCGTGCAACATCCAANGNGTTAGNCATGTTNGACCAANNCA
CAGATTNGAGGAGTTCAAAAGAGGCCTNCAACATGAGTTGATCAAGAAANANGAGATGGCT

348/467

Sequence 2082

Sequence 2083

Sequence 2084

Sequence 2085

Sequence 2086

Sequence 2087

Sequence 2088

Sequence 2089

[illegible]

CNTCNCGCCACGGACGCCCGGCTNTCCCCGNC AAGCNCTAAAAACGGGGGCCNCCCACAA
AGGGGGGCGGANANAAGAGC NNNNAACGGGNACCCNCGACCCCAAAAAACNNGGAAANAAG
GGGGGAAGGGGNCAACGCAAGNNGGGGCCAANC GCCCCGGANAAAAACN GGAGANNACCGCC
CCNCNGAACCGGANGGAAGACCANC GGCCCNAAAAAAGGGGNCCCA CGGGGGCCAAANCAG
GGAACAACACACAAAAACCCCAANCCGGGGCCANN NCCNNTGGAANCAAAAAAGGGGANANG
AGCCGAACACCGNCCCAATGGGGGA

NATTGCGAANTGGGCCGCTCTTCNCGCTNNCTCGCTCACTGACTCCGCTTGCGCTCGGTC
CGNNCGGCTGCCGGCGAGCGGGTATCAAGCTCACTCAAAGGCGGGAAANACNGTTATTCC
ACAAGAANCAAGGGGGAATAAACCGCCAGGGAAAAAGAAACATGGTGAACAAAAGGCC
AGCAAAAGGGCCAAAGGAAACCCGAAAAAANGCCCNCGTTGGCTGGCGTTTNTTCCAA
TAAGGCTCCGGCCC

CCCTTANTTTNGNCNTTNNCGANGNACCACACACATAGGTAGCCNGCATTTCATGGAACAG
GCACCGTGGGCTGGGCTGCACCACACCATCTTTCCATGTGTTATCTCTTTCTAGAGACTT
CTTGAAAATTGGTAGGATTATCATATCATATGTTCTTGGAACATCTGTTGACTATTTCT
GTACATCATGGCTCGGACTTGGGTCAAGCTCTTGGCACCAATGTCCTGGCATGAGTGTTG
GATGCCAGCAATCAGGTAAGGGACAAATTTGTGGATTGACCCTTTGTCTGCACAGCACC
AGACACTCCCTGGGCCACTTTGATTTTGTCAAGCTTCACTGAAATATCTGTTCTGGCTGC
TGAGGTGCTTGTCCCATGGCATCGAAGAGAACCCATACCGCGATATTTCTTAGCNCGGA
TCCCATCGGAAAAAGAAAGTANTCACCAGGGGGCCCTAAGTGGGTGGCAGCCAGGAAGAG
AGCCCCATCATGGACTGNNGGAGGCCCAAGGGGC

GGAGCTCCCCGCGGTGGCGGCCGAGGTACATTTTTAAAGAGTTGTTT[†]TTGGCCGGGCGC
NTTGGCTCATNCTGTAATCCAGCACTTTGGGAGGCCGAGGTGGCGGATCACGAGGTC
TGGAGTTTGAGACCATCCTGGCTAACACAGTCAAATCCCGTCTCTACTAAAAATACAAA
AATTAGCCAGGCGTGGTGGCTGGCACCTGTAGTCCAGCTACTTGGGAGGCTGAGGCAGG
AGAATGGCGTGAACCTGGAAGGAAGAGGTTGCAGTGAGCCAAGATTGCNCCCTGCACTC
CAGCCTGGGCAACAGAGCAAGACTCCATCTCAAAAAAAAAAAAAAAAAAAGTACCTGCCC

TTAATTGCGCCCTTGGCGTAATCATGGTCATAAGCTGTTTCCTGTGTGAAAATTGTTAT
TCCGCTCACAAATCCACACCAACATACGAGCCCGGGAGCATTAAAGTGTAAGAGCCTGGG
GTGCCTAAATGAGGGGAGCTAACTCAACATTTAATTGCGGTGCGCCTCACTTGCCCGCTT
TTNCAATTCNGGGAAACCTTGC GTGNCCAGCTTGCANTTAATGAAATCGGCCAC

CCCCGCGTCCGCCTCGNAAATTGTTGATGCTCTTCCCCTCCCCGAGGTCTCGCATNCAA
 ANCCTGGTGGGCTGGCCTTGTGTGGCTGCTTCTCCAGGCCTGGTCAGNACCCAGCAGGCT
 CAGGGTCTGCTCCTGATGCTGNGCTCTGGGACAGGCACGCCACTGTGNGAAACACTAAGC
 NAGGTAATCGAGCATTTNGTGATCACAGACTCCAGCTTCTGGTCCACCCAGCATGTAGT
 CAGCACTCTGACCTTNACACCAGAGCTCCACAGCGGCTAGGAGTTGACTTCCTGTGTCAT
 GACCTCAGGAAATAAATTTCTTGACTTTAAAAAAAAAAAA

TTCTGCTGAGACGCGTGTGGCTNCCTCCCCGCAACANCCAAAATGNTGAAGCTGATCGAG
AGCAAGGAAGCTTTTCAGGAGGCCCTGGCCGCCGNGGGAGACAAGCTTGT CNTGGTGGAC
TTCTCTGCTACGTGGTGTGGACCTTGCAAAATGATCANGCCCTTCTCCATTCCCTCTGT
GACAAGTNTTCCAATGTGGNGTTCCTTGAAGTGGATGTNGATGACTGCCAGGATGTTNCT
GCANACTGTGAATTCNAATGCNTGCCAGACCTTCCAGNTCTATAAAANGGGNCAAAAGGN
GGGGGNNNTCTACNGNGCTAACAAGGAAAAGCTTGAAGCCTNTATTACTGAATATGCCA
ATCATGCTCTGAAAAGTGGGACCAGCTNCCAAGCTGNTTNAACCTCGTACCNTTNTTAA
TTTGCTAAAAACTATGAAAGTGTGGAGAGGCTATCCCAACTGNCATCTGATTATTAGTA

TABLE 1
350/467

CAATAAAAAAANTAATTCTACCCCTTNANAAAAAAAAAAAAAAAAAAAA

Sequence 2095

TGTGTAGCACCTGNGGNGTCCTTGNGTGATTATTCTTGTCGAGGTACTTAGGGCAAGTC
ACATGCCCTCCATCCCNTGGCTCANAGATGAAGAGTAAATCCAAACATGTGCCTCGCTC
TTGGTCACTAACTGCTGNCCTG

Sequence 2096

TCGAGCGGCCGCGCCGGGCAGGTACTTTNTTAATGCCTTNGTTGGAGTCCTNATCCTCATC
TTTAAAAAAAAAAAAACAGNTTANCCTAAGCCANATTCACTTTTTTTAGTTNACAAAAA
GGATTAANTNGCCACANTGTGATTT

Sequence 2097

ATTNNCCCTTAATCATCTCACGCCCCATGTATGATTCTCAAAGNGCCTAGCGTGANCANC
NGTCCCTNAGACCACACCAATTTCTTATGTCNCNCTCAAGAAAGCCAAATGACAATNA
TAANGCCATCTCAANCNCAATANCCTACCANAACCACCCCNCGGNCCTTATCTANACTTCA
ACTCAAACCTCTCTGCCTCCTTACTNTCTGGGGAGCTTNAACCANNTNACTNATAACTT
TAAAAACCTNTCTNTAAATNTCANAAACCACANCTCACCATTNNCACAACCACCCCA
ACACCAANANNTTCCCAACAACC

Sequence 2098

CCCTTAGCGTGGTCGCGGCCGAGGTACACCAAGACCAATTGCTAAAATCTTGGATTATGG
AAAATTTAAGTATGAAAGAAAGAAAAACAAAAAGTTGAAAAAGAAAAACAATCTTTCAC
AAACAATAGAGAAATTCGTTTATCTTTTGAATCAATTTAAGNGATATAAAAAATCAAAGC
AAAAAAGCCAAAGAATTTTTATTAGATAACGACAGAGTAAAAGTGGCTCTTCGTCTTAG
AGGGCGTGAAAATACAAGACCTGAACAAGGTAAATTAATTTAAATCTTTTTTTGATGA
AGTAAAATCGATTGCAAAATTAAGTAAAGAAATGCAATCAGTTGGTAATTTTTTA

Sequence 2099

NGNCCTTNCGAGCGGCCGCGCCGGGCAGGTACAAATTGAGCTCTCTATTTCATAACCTCAAT
GTATGTATTCTGCCCATTAATATACTTTGCACCAGCAAAAGCGATTTCCACATATGTG
TTTTGGAGGTAATTAAGTAACTCTGTATAAAAATAAATGCACTTTTCCCTCCTTTCCCA
GTGAATGGAAAACTTCATACTTTCAAATAATAATAAAAAATAATTTTTAAGAGCAAC
AGCCCTCAACTCTTTGCTGGTGCCCTGCCATACTGCCTTTCTTCACTCCATTCTTAGCTCT
GCTAGTTTCTTCTGTATGTCATGATAAAAAGGGAATGTGGGGTGTGTAA

Sequence 2100

NCCTTAGCGTGGTCGCGGCCGAGGTACACTGGAGGCTGGAGCCTGCAGATGGCATGGCTC
TGCGGCTCACCTTGCTGCAGTTGGTGGTGGTGACAGAGACTGCAGCTTGACTGTAGTAA
TTTGAAATTATCTGTCTGGAAGCTCTGAGTTTATCTTGGGACCTCAAGAGGAGAGGATC
ACCAACTCACAGCAATCAAACCTCAAATGGTGCTATAAACTGAACCACACATGGACACG
TCAGTCTTCGAGGACCCTTAGATCAACCCAGGAGGAGCCCTAGCTGCTGTTCCCCATT
CGACGCCCTTTCCAGCAGG

Sequence 2101

NAGGGGCGGGAATTTTGGGNGGGCCCCCTTTCTTANAATGCATTGCTTCGNANGGCCC
GGGNGCCCCCCCCCAGTGGTGGATGGGATATTCTTNCCAAAATTGGGGGGGGCCCTTT
TTNNGGNCCNNAAAAAACCCNNGGGGCCGNCCGGGGCCAAGGTTACCTTGGACTTGAA
AAATTTGGGNCNTTTTTNTTTTGGGGGNNCCTTTNCCNNNNNNNNNNNNNNNNNNNN
NNNANGGGCCCCCGGGTTTNTTNCNTTTTCCAAAANAGGCCCNNTTTNNNGNGNGGG
GNGGGTTGGGGNAAAAAANNNNNNNNTTTTTTTTTNNNNNNNNNNCCCCCCCCCCCCN
TTAAAAANAAAAAAA

Sequence 2102

CCCTTTCGAGCGGCCGCGCCGGGCAGGCACTTATTTTTTTTTTTTTTTTTTTTTCTTTT
TT
TTTTNTNAANAAAAAAAANTTTTTNTTNAANTNGGGNCNAACTNTTAAACNAANN
AAAAAANNNNTNTTAAANGTTNTCNAAGNNGGNNNNNCCNNANAGGNANAAAANGAA
AANGNNTNATTTTTNTTNAAAAAAANNTTNTTAAANTGTTGNNGGNGGGGGTAGG

TABLE 1

351/467

TTAAAAAAAAAA

Sequence 2103

CCCTTTCGAGCGGCCGCCGCGGCGAGGTACTCTGTCTCTGTAGTCTCTCCATTCTAAAGTT
TAATTTGGAAAGGTCTGTCTGAATTATCAAAGTAAGAATACTCAGATTTCCATAAGCTC
TTCTCACCTCCTCTTAGCCCAACTCAAATCCATCAGACCTTCTCACCTTGATTTTGAGC
TGGAATGTTTCAATGAGCAAAATAAATTAGACAAANGTTAAAAAAAAAAAAAAAAAAAAA
NGTACCTCGGCCGCGACACGCTAAGGG

Sequence 2104

CCCTTAGCGTGGTCGCGGCCGAGGTACCTGACCCCGGTCCTCAAGGAATCAAAGTTTAAAG
GAAACAGGTGTAATTACCCAGAAAGAGTTTGTGGCAGCTGGAGATCACCTAGTCCACCAC
TGTCCAACATGGNANTGGGCTACAGGGGAAGAATTGAAAGTGAAGGCATACCTACCAACA
GGCAACAATTTTTGGTAACCAAAATGTGCCGTGCTATAAGCGGTGCAACAGATGGAA
TATTCAGATGAATTGGAAGCTATCATTGAAGAAGATGATGGTGATGGCGGATGGGTAGAT
ACATATCAACACAGGTATTACAGGAATAACGGAAGCCGTTAAAGAGATCACACTGGA
AA

Sequence 2105

CCCTTAGCGTGGNCGCGGCCGAGGCACTTTTTTTTTTTTTTTTTTTNGCTTTTTT
TT
TTTTNAATGGCCAGGCTCCCAACATTTNAAAAAACTGCNCCCCCAATGGGTGAACAAA
GTAAAGAGTAGTAACCTAAAGTTCACCTGAGTAAGCCACTGNGGAGCCTTAAGNGGNGAG
GTCTTCCAATTTNANAGNGATGNGNCTTCAACTTGATNATNATTTTANGCGGAAAAACA
TAA

Sequence 2106

TCGGCGTCGCGACCCCCGAGGACCTCCTCTNCTCGCTCTGTGGCATACTAGTCCTGGG
CACTCAACCGCGGAGAGCCCCGACCCCGGGGTAGCGGCTGAGCCTCAGCCGGGACCGGN
ACCGGANCCCGCGCGGAGCATGTNATCCGGGCTGGGGGACGCTGGNACAGTGGGCTGGGT
TGGCCCTCCT

Sequence 2107

AATTTGTGTGTTGTGTTGTTGGGGTTTTGTTTTATTTCTTACATTANAGTNCATA
TTTTCTGGGATTTAAATTATAGGTGTATTTCTATTCTCTTGAGAAAGNAGACTAAACAG
TCTTTGCAATGATGACGGATGCACACAGANAAAACATTAGAAGACATTACTTTCTATCC
TCTCATGTGGTTGANCATTCTTACACGCCAAATGACTAAATTGGTGTTTCNTAGGAAGGA
GCAGCTGTCACCTACAATGTGAAAATATTAATGTTTTAGGCCAGNNGGCCAAACCTTCAA
GGGGGCTGTTGGNCAATTTATNGTCCCCTNATNCTTTNAAAAATTTGAANGGTTTCA
NNAAANTTGTNNAAACCACCAAAAACNCCCTTTNANCATNGNNGGGGCAANGGGGTT
GGGGACCTTNGNGACCTTAANTGNATTGGCCAATTACCGCCTTGGGGCCTTGNTNAANGC
CTTCAACNCCNAAAANAATTGGCCCACCAATTGGGGGGTCTTTTNGTNANACCTTNTTGG
NACCAACCAACAACCTTAANCTTNGANCTTCAAAANGGCTTGGGGCNAGGGTANCAACA
ACNTTCAAGGTTTATNCCGGCTTCNCAAANGGCGNCTTNAACCTTNTTGGNGAATTTGA
AGGCTTAAAAACCTTGGCCATGGAAATCCCANCTTTAAGGGCCCAATCCCTT

Sequence 2108

ACCACGCGTCCGAGCTCGCTCAGCACTCCCAGGTCTTAGCACTCCCAGGTCGTAGCTGG
CGCAGTCAGTAGGAAGTGAAGTATGTCTCTGATGCACCACGTGTTAGACACAGCACAG
TCCTTTTTCTGTTCTACGGTGGAAGTAGTTTCTCTTTGGGCATGCTGACAGCACTTT
TCATAGCCTCACCGATGAGCCCTTCTGCGGGAGTGAAGTCCATGCCTGTATACAGAGTAT
TTATACAGATGTTTTAGCATCTTCATATGCGGTGTTAACCCTAGTTCTGTACAGCATAT
TCTGTTCAAGTATTTTTTACAAGCTTGTGCTGTAGGCACATGCCTTCTGCTGCAGAAGT
GGACACCCGTGGCACACCCACCCCGCCCCAGTGGGGTGCCATGCCTTCTGGGACATTGC
CACTTCTGCCCTGGAAGTCAATGCAGGTACGTAGTAGCTGCTATTGCCAGA

Sequence 2109

NCGCCTATCACATAGTCAAACCCAGTCCCTGGCCACTGACAGGAGCTCTGTCAGCTTTCT

TABLE 1
352/467

TAATAACGTCCGGCTTAATCATATGATTTCACCTTCTACTCTATCACCTACTAACACTAG
GCCTACTAACCAACACACTAACCTTATATCAATGATGACAGTGACATCGTACTGAGAAAG
CACATACCAAGGCCACCACCACAATACTCCCGTCCAAAAAAGCNCTTCCGGTACCGGAA
TTAACAACATATTTTATCANTTCTCNAAAAAGTTATTCTTTTNTTTATTCGNGCCTTCT
TCTTGAGCANTTTTTANCCACATCTAAAGGCCCTCAGCNCCACAACAACACCTGGCTTTA
AGGNGGGGCNCAATTTGNACCCANCCCANACAAGGGCGATTANCCCCCCCCCTGNAACCC
CCCCATTAGTAAAGGTACNCCCCTNNCTTAAAAACAACCTTCTTGGNNATTTAACTTTG
NCAATCCTTGGGGGGGTNAAACAAANTCAACCTGGAAGGCTTACCNACAAGNCCCTNC
ATTAATAATTAATNGACCCCGAAAAAANCAAAACCAANTCCCAAAGGCNCCCTGCCTCA
TTCACCAATACCTAACTTAGGGTTACCTTAT

Sequence 2110

CGTCCGGGACCTTTATGTCTTGTAAGATGTCTAGGCCTGGCCGGGCGCGGTGGCTCACA
CCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCACGAGGGCAGGAGTTTGAG
ACCAGCCTGATCAACATGGNGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCGGGC
ATCGTGGCACATGCCTGTAATCCAGCTACTCGGGAGGCCGAGGCAAGAGAATNGNTTGA
ACCCAGGAGGTGGAAGTTGCAGNGAGCCAAATCACGCCACTGCACTCCAGCCTGGGCAG
CANAGTGAGACTCCGNCTNAAAAACAAAAACAAAAAGCAAAACCAGATGTCTAGG
CCAATGATAATTATTTTGTGCTTGTGGATTANGNTCTTTGTTAACCCCACTGTCTT
GGGGAATGATGCCTGCTGGGAAATTGAGTTTTTGAAGTAAACATGGAACCTTNCCTGCTT
TTTTCTGGNTCCTATGAAGTTTTGGAACATNTGAAACACAAAACTCACCTTGAAAT
TTGAGCAGGTGATGATGGCAAAAAATTATT

Sequence 2111

GCGTCCGCTGATCTGCTTTGGGACGGCCTTTATATACTTCCTCCTTTCCAGGCCTTCCAC
CACCAGTGACCACTATTCGACATCTGGCCCACTCTCAGTCATCCTCCTGCTTATGCTTGT
CTNCTCCTTGAAGGCTTCCCACTGCATGTAGGACAAAGGTCAGATTTTGTAAACAGGCCAG
GCCTGGNCTTNATAGTCTGGNATCCACTAATTTATGGTCTNAGTCTNATCCCTTGGAGGA
TTACCTCTGNCCTTNGNAAGCTCTGTGCTCCNG

Sequence 2112

TTCATAACAATTCTCCTACAAATCACCTTAATTCTGACATTCATGGCCACAGAATAATT
ATATNCTACATTCTATTTGAAACCACCTTATCCCCACCTAATTATCAGGTACTAAATG
AGGCAGCCAAGCAAAACGCCTTAACGCAAGNACTTACTTTCTATTCTACACACTAACCGG
CTCTCTACCCCTACTCATCATACTAAGCGCACACCTACAAACAACACAGGCTCACNTAAA
CATCACAGCTANCTAACACTTCACGNGACCAAAAAACNTAACAACCCACCTGGGNNCCC
CACAGCANTTACCCTGGGCCTAGCNANTGGCATATATAAGCGCTTTTATGGACCAAAAAA
TACCCCTTNTTATNGGGGTCTACACNCTTATTGACTTCCCNCAANAAGNCCCATGNTTG
AAAGCCCCNCATTTGCAAGGGGNTCAAATANGTCCTTTGCACGNCAGNTACCTTCCTTAA
AAACTAGGGCNGGCTATGGGGCAATAAAATACCGGGNTTTAACTCCCCATTTCTTCAAAN
ACCCCTTAAACGGGAAATTANCATAAGCCNTACCCATTTCCCTCATTATTAATCCCTTA
TGGGGGCNATAANTCATAACAAAGGCCNTAAACANTGCCTCCCGACAA

Sequence 2113

TTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACCTGCTACTTTTTAAACAATTTCAACTGCA
GCTCTCTTTCCTAAGTNAGATGGGNAAAGCATGCCATTTCTGTTNCTTGNGATTTTA
CTTTTTAGAAACACACATGCTTCCACTGCCATCTGACACTTCTCCACACGCTTTCATNTT
GTAAACCTGAATTCTATTTNGAGTACCTATCAAATACTTTCTGGAGGNGGGGCACGCTCC
GCTCGGTCTATGATGCTGATCCACTTGGGAACATCAGTTCCCTTCTCTTCACTCCAGCGT
CATAGAGATCCCGAGCATCTTGGNNAATCAGTTCATAATCAATGACAGAGCCATCCTCTG
CTCTTCTACCTTTGCCA

Sequence 2114

GTGGGGGGGGGGGGGGGNAANCTCGTTGGGACNCGCCCCNAATTNNNANNNAACONNNNGNN
CNNNCTNGAGGGCGAAGGNATNNATAAGCTTGAGGGGGGGGGGCTGGANACCGANGNATC
CACTAGTTCTAGAGNGGGCCGCCNACCGGGGTGGNGCTNCAGCTTTTTGTTCCCTTTAG

353/467

GGTACCTTGCTGGAGAATGCAGTGACAGCACCGGCCCATGCTTGAGAACCANGCGGCT
GTGCAGAGGGCAGCCGACCACTATAGCCAGCAGATGGCCAGCAACTGAGGCTCCCCACA
GACACGCTCCAGGAGCTGCTGGACGTGCATGCAGCCTGTGAGAGGGAAGCCATTGCAGTC
TTCATGGAGCACTCCTTCAAGGATGAAAACCATGAATTCAGAAGAAGCTTGTGGACACC
ATAGAGAAAAAGAAGGGAGACTTTGTGCTGCANAATGAAGAGGCATCTGCCAAATATTGC
CAGGCTGAGCTTAAGCGGCTTTCANAGCACCTGACAGAAAGCAT

354/467

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCNGGCCAGGTACCCTTGAAGATGGGAA
AGGTGAGGGAAATATNNGAAGCAGGGTCAGAACATCCACTAAGAACATAGCACCTNAGTA
NAGCTTACATTATATGAGCCAGGGTAGAGTTANTACTGAAT

[illegible]

GCGAATTGGATCTCNCCGCGGTGGCGGCCGAGGTACCTTTTTAAATCTAGCCCAGTATAA
ACATTAGCCTGCTTAATATTTAGACATTTATAGGTAGAATTCTGAGCACTCAACTCATGT
TTGGCATTTTAAAGTAAAAACAAGTGTGACTTCGAGGACCAAGAAAATTGTCAGCTATAC
ATTTATCTTTATGAACCATTTATATTCCTTTTAATGACTCGTTGTTCTAACATTTCTT
AGAAGTGTTCTTATAAAGGTCTAATGTATCCACAGGCTGTTGTCTTATTAGTAAATGCAA
AGTAATGACTTTGTCTGTTTACTCTAGTCTTTAGTACTGGTTGTCAGGATTCAGCCGAA
TGGCTTGCCCTCAGAGGGTCAATGGCGTTCTGAGATGGTGGCCAGTTGTCCAGACGGTAGC
TTGCTATTGCCAGTCCAGAGGTGAATTCTGGGTCTTTGGCT

GC GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTGGTGAAAGTTCTTGATGAGGG
TCTCAATGGCCCTCTCCACATCACTGAATTCCTGAGCATCCTCTGCGTTGGCTGACCGAC
ACTGTCCCATGGTGCCCATGTGTCTGGTCCTTTGGTGAGAGTTCTGTTGTCCTATAGCT
GGCCCCAGAGGAGCTGATGGCTCATGATCTGTTGGCAGCCGCTGAGACAAGACAGGAGGC
CCCGCTACCTGACCCG

CCGCGGTGGCGGCCGAGGTACCGGTGCGCATAAGAGGAAGATTTCTGAAGAGTGCAGCT
GCCTGAACCNANCCCTGCCGAACAGNTGANAATTGCACTGCANCCATGANTGAGAACAAT
TAGAATNCCTTGGNGGGCAGCCTACGGNANCTNAAATGCCATTTAACCTGGAACCTTGATG

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GGGTTTGTGTGGGATGGGAAGTAGGGCGGATGAGCCAGTACTTNTGCAATGAAGATGCAA
TAGTCNTTGTCTNTCCCACTGTCNCCTNTTTCCTCACCCNATGGCAGCTTACATGACCT
ATTCCCAAAGGGTCCACCGAGNCCTGAACCTCAGCTTCATCACCACATTCTCGCCTTNA
GNAAGAATTCAACACTGTATAAGGGAGTNGAGGCANAGACTTGGGNCAGGGNGAGGGTGG
NNAACACNNAAGCACACTNTCTTGTCATCAACCCAAGTTCAGAGACAAGGCCTCONCANA
TGNGGAAGATGATGCCCTTAGACACCNCACCTGNTTGTCTNNCNTTCNTNGAAGCNCAA
GCAGCCTGNATCTCAACTGAAGAGAAGGGG

TATAGGCGGAATTGGAGCTCCCCGCGTGGCGGCCGCCGGGCAGGTACGGGGAATGGAA
TGAATGGAATGCAATGGAATGGAATCTTCCGGAATGGAATGGAATGGAATGGAACGGAA
TGAACGGAATGGAACGGAATGGAATGGAATGGAATGGAATGCAATGGAATGGAATCTTC
CGGAATGGAATGGAATGGAATGGAATCAACCCGAGTGCAATGGAATGGAGTGAATGGAA
TGAATGGAATGGAACAACCCGAATGGAATCGAATGTAATGGAGTTGAATAGAATCAATC
CGAATGTAATGGAATGGAATGGAACCGGAATGGAATTGAATGGAATGGAATGGAATGCAA

TABLE 1
355/467

TGGAATGGAATCAACCCGAGTGCAATGGAATGGAGAGGAATGGAATGGAATGGAAGGGAG
ACTACCCGAATGGAATGGAATGTAATNGAGTGTAAAGGGAATTGAATAGAATCAATCCCAA
TGTAATGGAATGGAATGGAATGGAATGCAATGGAATGGAATCTTCCGAATGGAATTG

Sequence 2129

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACNCGGGGNACTGAAANTCCA
CACGACANAATAGCCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCCTGCAGAACGGCTG
CCTAATTTACAGCACCCATGAGGAAAGGCCACTTANGGATGCAGCAAGAAGGAGCCATCT
GCAATCCAGGAAGAAATTCCTTGCCAGGAACCAATTGGTTGTCACCTTCATCTAGGACT
TCTAGCCTCGAGAACTTACAAATGGTGATGATCATCAGGTCAAGGATAGTC

Sequence 2130

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAACTGAAAATCCAC
AAGACAGAATAGCCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCCTGCAGAACGGCTGC
CTAATTTACAGCANCCATGAGGAAAGGCCACTTAAGGATGCAGCAAGAAGGAGCCATCTG
CAATCCAGGAAGAAATTCCTTGCCAGGAACCAAAATTGGTTGTCACCTTCATCTAGGACTT
CTAGCCTCGAGAACTTACAAATGGTGATGATCATCAGGTCAAGGATAGTCTGGAGCAATT
GAGATGTCACTTTACATGGGGAGTTATCCATTGATGACGATGAAATGCC

Sequence 2131

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACTATCATTAAATGTAT
TATATACACTGATACTTTAAACTTGTGTGGAAAACTAACTTATAATTTGTATCACA
CACCTGGATATGTGTTCTGTTCTAAGCGACATTTGTGAGAGATTATTGTAAATGAGA
GCGAGCAAATAAACTTAATTTAATCTTGCAGATACATACTTATGGGAAATTTGAACAA
ATGAGTGAAACTCTGTGTTTTAGTAGGCTGTGATAACATTTCCGGGCACCTTTGCAAAA
GGACTTTCTTTTTTGCCGGGNGCTTTAATNANTTAATAAAAATTTTTTTAAAGTTAAAA
AAAATNGTGGNAAANAAAACTTTTTTTTTTTTTNTTTTTAAAAANNAGGNTTNNANNAAC
NTTTNTNTTTNGCCGNANNAANCCCCCCCCCGGTTTNCNGGGGAAANAAAAAAAT
NNGGGCCCNCCNTTTNTTTTTTNCNGGGGGGGGGGGGGGGGGGNTTTTTTTTTTGN
GAAAAGNGNTGTTTTTNNCCCCCCCCCCCCCTTTTTTAANANAAAAAAATTAATTGGG
GGNNNTTTTTTTTTNNATTNNNNACCCCNCAATTNNGGNTTTTTTANNTNAANANC
CCCCNGGCCNTTNTNATANATGCCCCCNCCCCCCC

Sequence 2132

GAGGTGTTACATTGTCGAAGGACACCAGCTGCGGAATTTGCGGNTTTGGCAGATTGAA
ATCATGGCNGGTCCAGAAAGTGATGCGCAATACCAGTTCACTGGTATTAATAAATATTTTC
AACTCTTATACTCTCACAGGTAGAATGAAGTGTACAGAATCCATTCTCATTCTTACT
TGCTACATTATGACCATGAGGAGGGCANAGTAGAGGTGAACTCTCTGTATACTTGCTGAA
AGTCTTCTTGACCT

Sequence 2133

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTCAGTAAGAGATGGG
GTTTCACTATGTTGGTCACTATGGTCTTGATCTCTTGATCTCGTGATCTACCCACCTTGG
GTTCCCAAATGTTGGGATTACAGGTGTGAGCCACTGCACCAGGCAAACTGCGATCTTTT
AGTGGTGCCTCTTCTCTCTTTGACTTAAGGATGTTGTCCCTTAAGGAAACCTGGAGGCT
ACTACTGTGATACACTACTTGAGAGATGGATTGTTGCTCTTTCTTCTACAGTCTTACANG
GAGTAGATTATAAAGACGGAAGATGTTACCATTTGCNTTAATTGTTGGAAGCTGANAGCT
TTAATTTTTGGTTNCAACTGTTTTGNGGGANNTCCCGNAAAAATTTNNNNNAATTTT
TNTTTTTTNGGGAAAAGGGGNCNTTTTTAAAAACAGGGGGGGGNGGAAAAATTTGN
GGGNGGGGGGCCCNCCAAAAAAGGGGGGTTTTTNTTNCNGNNNCCGG
GGGGGGGNGGNCNNTTTTTAAANCCTTTTTTTTGNNTTNCNCNAAAAAANNAACC
CCTNNNGGGGNGTTTTTTTTTTT

Sequence 2134

CCGGGCAGGTACAAGAGATAGAAAGACCAAGTCCTTGCTGAAAGACAAGTCTGAATGCTCC
ACTTTTTCAATTCTCTCTCCATTCTTCAGTAAGTCAACTTCAATGTTCGGATGGATGAAAC
CCAGACACATAGCAATTCAGGAAATTTGACTTTCCATTCTNTGCTGGATGACGTGAGTAA

TABLE 1

356/467

ACCTGAATCTTTGGAGTACAGGACAATNAAGACTACTCCTATNTGCGGAACAACTAGCTT
TCTATTTAGTTCTAGAATGTTGAAACTGACCGATTGGCTGACATAAAAGTCACATTTTAC
AAAAAAGTGTCTCCAAATGCTTTGACTAGGGGAAAAACCCCTTTTCAATTAGAGGGAGCC
ATTNTGCAACAAATTTCCACAAATAATTGCTTATTCCAAGGGGCAANGGCACCATTG
ATATNGGGAAATTTTTTTGTTTTTNGNGCCAAATTTAAGGGNA

Sequence 2135

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCCAAGACTCAGCACTAGTCTGATG
ACCTGCTAATTCAGTACAGCATAGGGCTGTCTGTTGTTTTGCGCAAGTTGGTGTGAAC
AAAGTTCACAATATCTGGTGAATAGGAGCCTTGAATACAGCAGGCAAAGTGACATTTT
GCCAGATGACTCCCCCTTTTCGGAGTACCTTGTCAAAAAACACCGCTGAGTCACTTCCA
GGTGCTGTTAAGTTTTCTTTAGTGAAGATGTCTATACCAGAGGGAGCATAGTTCAGATG
ATTCCTCAGCGGCAATGTAGTAGTGTCTAACATGCTTCCCACGGATATTATCCTTTTGA
TGAAGACTTTGTACACTCCTGGACCTGGAAAAAGGCTTGCAAACCGGC

Sequence 2136

TNGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTGAATGTAGAAA
CAATGAGGATGGACCTGGTTTAATAATGGAAGAACAGCACAAAGTGTCTTGAAGAGCCT
TGAACATAAAACACAGACACCTCCTGTGGAGGAGAATGTAAGTCAAAAAATTAGTGCCTG
GNAATTTGGGCTGATGAGCTTTCTGGATCCTAAGCCACCTACCGAATTNTTGGANGGTT
GGCTGNNGGTGTGGGGAAACACAAGTCTTTTCCAATTTTACAAAACGAACCAATTGACC
CCAGGGACTTNTTGGTTTATTGGGTGGGG

Sequence 2137

CCGCGGTGGCGGCCGNGTNCNCGGNGCCNGAAGAGGAAGATTTCTGAAGAGTGCNGCTG
TCTGAACCGAGCCCTGCCNAACAGCTGANGAATTGNACTGCAACCATGACTGAGAACANT
AAGAANTCCTTGGAGAGCACCTACGGCAACTAAAATGCCATTTACCTTGNAACCTGAT
GGAGGGGAGAAAACT

Sequence 2138

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNCNGGCCAGGTACCANATGAANNG
NNAAGACAAGGCCATNCNCACTTTATAGAGGGNGTNAAANTAAACCANAGNTCCNGGGA
GAAAGAAANG

Sequence 2139

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTGTTTATCATATTTAGGTTATTTATT
AATGAAAGGTATNTGANATTTTCAGGAATACAAATTTGCACCTGATGACCTCAAATGC
GTGCAACAAGATGTTAATACANGAAAAATAACACAAAAACTGTTGTTACAGTGTTAGAA
TTTTTAACTTAAAAAACCATGAATTTGTATTGNTTAAATTGCACAATAAAATAATGTTG
ATATATACTTAAGCTTAAATTAATTNCAACANGGNAACATTTTCCAACCCAGAGGTGTG
GCCTGATGTTGGGGTTCAANTCTGGACTTNTATTTTTTGGGTANCACACTCAACTTTTGA
ATTGNTTAAGGGNTTATTTNANCCATTCTAACTCTANGAAAAAATNTTNAAATTNCGT
TTCCCAAAGNCATTANCCGNGGAATTTTTTTGTTGATTTTCTNCAAGAAAAAATTTTTCGG
GAGGTTAAAAGGAAGGNGTNTAATATCACTTAATTATCCCAACATTTTCTAAAGGGGGGG
GGAAAC

Sequence 2140

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTATCAGCTAATTGGGCTCCTTT
GAAATGCTGAGGATCTGCTTACGCAGGTTAACTCTTTGAGGAAGGGGGTNGGGTAAGTAG
CCCTTAATGTCTTGTAATCAAGGGGCCAGATGGCGTTCGTCAGGCTTTCCAGCTAAGG
GAGAGTCTACTCATATGGGAAACAAGCCTAGGTAATTAAGGAGACAAAAAGGGAAAATTT
AAAAATAGGGTTAGTAAAAACAAGGTTAAATAGGGTTAGTAAAAACAAGGTCAGGCA
TTACAAAAGGATTCTCCTGTCTCAGCCTCCACTGGGATTACAGGCTCGCACCACCAAGCC
CAGTTAACTTTTGATTTTTAGTACCTGCCCGGGCGGC

Sequence 2141

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTT
NTNAGCAAGCACGTGCACCTTATTGAATGACACTGTAAACAGGTGTGTGGGTATAAACTG

TABLE 1

357/467

CTGTATCTAGGGGCAGGACCAAGGGG

Sequence 2142

TGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTA CTCTTACCCTTGCCCTCTCCTAA
AGGGAGCACAAGGAACTGAAGAGACTGAAAAAGAAGAGAGTTTGTAGCTGCAAAAGAAT
AGGGATAGCAAGGAAACCCAGAAGTGCATTCCCCTAAGTGGGGCCATCCCATGTGATTGA
ATTGTCCATAGCTTGCCCTATGGTGAGAAATGTGCATGCTCCGTGAGCTGGTCTCTTGAAA
CAGGACTTATGCTTCCTCTATATTCTGGTTAAATTTTCCAAACACATAAGTTCAGTGAGC
ACAGATTTCTTATCCAGAGACAAGTAGAATCTAACCAGAGACTGTTGGCAGAGTTTCCAG
GCACTTAGCCATGTTCCCTTCCTGACTCAAATCCCCAAAGGCCCTTCACTCTCACTGAGAA
TCACACTACTGTCCCATAGATAAGGCAGGCATTGAAGCACCTGTCGTGATCCTCTAGGGG
GGAGAATGAAAGGTTATTTTCTGCATTGCATCATCATAGCTTTTAATA

Sequence 2143

AGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNGGNGC NNGCTCTACAGAATAGAGGCN
ATNCTTTAGCTTAAGCCTGTCTGCTGACCAGAGAATGGAATTNTGCGTGGNCTCANGGAA
CAAAAGGAACTAGGCAGGGAAGGGGAAGAAAAGTGC

Sequence 2144

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGNGGNACTTNTTTTTTTTTTTTTTTTTTTT
TTTTATACTGATAATTCTTTATTACTAAAGGTTTATTTACATAGNGTTTANNGCNTAAT
AAAAATAAATTACAATACAAAAGTGCTNTTTAGGAAGGAGACACTAAACAACAGGCCCA
TNTTACCCCTTGCTNTTTNGCCAAGACATAAGCTACAAATTTTGCCGAAAAAAGTGNCCA
TACATTTTTAACTACTTCTTCATTATTCTTATGGACCATCATCCAGGACATNTGTTTGAA
GAAATATCCAGTTATAATATTTCAAAGGNTNGAATTGNGAAGAAAAAATATAAAATGT
GATTAAAGGATNTNTAGCCTTCAGATGTAATTTACNGGGTTTAAAAATTGGCCCTTTAA
AACTTTTGCTTTTTTAGACNAGNNNTAAAAAGGCACAATGGAGACNCCATATTGTTANTG
GATTTTCANAAACNGGGGGNTCTTNTGNGNAATNCNTACCANTTTTTTTT

Sequence 2145

AGGCACNAGANGANTTTNCTTTTTTTTTTTTTTTTTTTNCTGNNATACAAAGAGCAGATT
TTTATTGAACCTTGGGCNATAACTATATTNCCATACAATNTAAATATTCATGAATAGTTTC
CCAAGTCTGGAGCGACCACATAGGGAGAAAATGTAAATGTCTCAATTTTGGTTNCACNA
AAATGTTTTTTTTATATCAAAATTTGNTTNTNAAAGCTTGGNGGATTAGCTTAAAAANA
AAAAAAGTTTCCTTGAAATCNGGGAAACAAGACATTTTAAATGAATCAANCAAAATTC
AAATTAAAAAATTATGAAAATATTATCCTCATTAGTTTCATTAGTGCCCATGGAAANT
TAATTATTCTCTCTGCNTTGATCTTTGGGGGGACAAGTTTCAATGGAAAGCCTGTCAGNT
TAANTTCATTAAGGTTT

Sequence 2146

GCTCCCCGCGGTGGCGGCCGAGGTACAAAGGAATAAAAATGTTACAACCTAAAAAACA
AACACCGTAAAACATTTAGAGTAAAACATGACAAACGTGCTGCTTTAGAGGAAAAAGA
TTTCATTTGAAGAATTTGGACTTCAAGCTACAACATCTCAATGAATAAGTGCAAGACAA
TTGAATCATGCAAGGATTGCCGATTACAAGAAGAATGGGTCTGTAAGGACACGTTAACAT
AAGAATCTTCCCTCATCTATCTCTTACTAAAAAGCCTATTGGAGTTAGAATGGGATCTGG
TAAAGGTTCAAGCTGAAAAATGAGTAGCTGTTGTTAAAGAAAATACAGTTATGTTTGAAGT
TGGTGGAGTTAAAGAAGAAATAGCTTCGTGATGCACTTCGTTTAGGTGGACACAACTAC
CNTGTTAAATGGAANGAATAATTNNGCANGGGAGGAATAATGGAATTCAAAGATTTAAAG
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ACCCCTTCGTTTTAGAAATTAACCTCAACCAACTNGGATCATNCCTCNAAAATTCAAAC
AAGGTTAGAAAANGGTTTTNCCCGGAATTTTACNNAATTTAGCCACCCAAAAA

Sequence 2147

TCCCCGCGGGGCGGCCGAGGTACATNTGCCTGNCTNCCTNCTGTCCTTCCTTTTTATTAT
AAGGATACATTTATAGNACCCCATAGAAGGAAAAAGATAAATTTCATAGGCTGNTAAAAGA
GGCTAGGCCTAAGTTATAATGCCTCCTCCTCACAGNCCAATTTNCCCAAGGGGCNTTANC

TABLE 1
358/467

ACCAGAGCAGNTTTTCTAGCTTGNGGACAATNCCNNCAGGCTTGAGTGATAATGNCCCNG
TNGCGGTAGCTCTCCACTTGNTNAAGGACCAANACACCTTAGCAG

Sequence 2148

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTTTTTT
TTTTTTGACTTTATATATAATACTTTATTTTATACAATTCAGTATATCATGTTAACATA
TTTCACTTTTAATTTTATGATATGTGTGACATATTTTAAATTTATGGATTCAATTATAC
TATCATAATTTTTTAAAGTTTGTATCTTTCATTAATAAGGAGGNTCCTTATTAATGGAT
TTTTTTTCTGTAGCTTCTGAGAACACATTTTATAGATACCCGGCTTCTAGTTATACCTGA
AGCTCCACAGTGTAGACATGTTTTGGCCAACCTTGTTTTATCGGTGTATGAAATTTGTGC
TAATAGGATGGATCCAATTGTCTTACATTAGAAAATAATGGGAAACATTTCTT

Sequence 2149

TCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTT
TTTTTTTTTTTTGACTTTATATATAATACTTTATTTTATACAATTCAGTATATCATGT
TAACATATTTCACTTTTAAATTTATGATATGTGTGACATATTTTAAATTTATGGATTCA
ATTATACTATCATAATTTTTTAAAGTTTGTATCTTTCATTAATAAGGAGGTTCCCTATT
AATGGATTTTTTTTCTGTAGCTTCTGAGAACACATTTTATAGATACCCGGCTTCTAGTTA
TACCTGAAGCTCCACAGTGTANACATGTTTTGGCCAACCTTGTTTTATCGGNGTATGAAA
TTTGTGCTAATAGGATGGATCCAATTGTCTTACATTAGAAAATAATNGGGAACATTTTT
TTTACATTNGGGGCAACNTACCAAAATTTT

Sequence 2150

CCGGGCAGGTACACGGGCAAAGGGGCTTGAGAAGGCCCGGNGGCGAAGCCGAAGAGAAGC
AACTGTGCCCGGAGAAGAGAAGCTCGCCCATTCAGACTGGGAACCAGCTTTCAGTGAA
GATGGCAGGGCCAGAAGCTTGTCTCGACTCCAACATCCGCCTCTGGGTGGTCTTACCCAT
CGTTATCATCACTTTCTTGTAGGCATGATCCGCCACTACGTGTCCATCCTGCTGCAGAG
CGACAAGAAGCTCACCCAGGAACAAGTATCTGACAGTCAAGTCCTAATTCGAAGCAGAGT
CCTCAGGGAAAATGGAAAATACATTCCAAACAGTCTTTCTTGACACGAAAATATTATTT
CAACAACCCAGAGGATGGATTTTTCAAAAAAACTAAACGGAAGGTAGTGCCACCTTCTCC
TATGACTGATCCTACTATGTTGACAGACATGATGAAAGGGAATGTAACAAATGTCCTCCC
TATGATTCTTATTGGTGGATGGATCAACATGACATTCTCAGGCTTTGTCACAACCAAGGT
CCATTTCCACTGACCCCTTCGTTTTAAGC

Sequence 2151

CCGGGCAGGTACGCGGGGNANTGCNANANACNCAAANCNNGNTANTACANTGCATCAAAC
ATGTTCAAGATTNNCCAATTGACGGGATTGGATTNAAAGATATNCCACCACTTTTAGCAA
GATGGNGAAGTGCTAAATNACACAATTAATCAACTGGCTGAGTTAGCTAAAGATGCATAT
GTTATTATAGGTCCANACGCAAGANGTTTCTTNCCTTGGGACACCTACTGCANCTNTTTTA
AAAAAACCTTTTATTATGGTAAGAAAACCTAAA

Sequence 2152

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGNNGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCC

Sequence 2153

AGGTACACTTCTAGCACCTAGCAGAGAGAGGCTTCACTACATNATGCTTCCTGACATCTC
TCCCTTTGAAGAGCAGTCAGACTCCTGCTTTGCTCTTCAGACTTAATTTGGGGGTTTAAAC
AGGTGAGGTTGCTGGGGGAACCTCTTTACAACATCTCTGAAAGAATCCGGGCTGCCAG
TTTCATTTGGTTTGGGTGTGAGTATGATGGAAAGACAAAAAACACAACCTTGACATC
TGCAGAAATGGGTTCAAATTTTACCTGCAACTACCAATTCTGTGGCCTTGGTTTCAGCAA
TTAAACTCCCTAAAATTAGTTTTTTCTTTGTAATAATGGGGTTATGAACAGTACCAATG
AAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCA
AGGGAGAAAGAAAAGATGAAAGACAAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAA
AATGGAGCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAA

TABLE 1

359/467

ATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCA
GCATCAAGCTGGAATGGGG

Sequence 2154

GNCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTAAGTGTGCACGTNGGTTAN
AGGCTGCGTGGCAGGANNGNGNTCAGATTNTCCCCTGCACNGNAATTGGGCTTTNAGGGG
GAAATGGTGGGGCCATCT

Sequence 2155

GAGCTCCCCGCCGTGGCGGCCGCCCGGGCAAGGTACANGTGTGTGTGGGTGAAATGGAGA
TTTGGAATTGAACTCTCTGCCTGTAAATGTTCCCAATAATTGTTGTGTGTATGATACC
GTGTATAATAAAAGTATTCTTGTAGAAATCTGAAAAAAAAAATGTAAAAAANNNTAA
AATAAAGGTTCTTGGCCCGCTNTANAAGTAGTTGGATCCCCCGGG

Sequence 2156

CGGCCGCCCGGGCANGGTACGCGGGGACACAAGACATCATCTTGAAGGAAGGATGGCTTT
GGCCAGACCAAGACCGAGACTTGGAGACCTGATTGAGATTTCTCGCTTTGGCTATGCACA
CTGGGCCATCTACGTGGGAGATGGCTATGTGGTCCATCTGGCTCCGGCAAGTCACTGGTG
CAGTCACGACAGTAGGTGTGGCAGCAGGCCTGCTGGCTGCCGCAAGCCTTGTGGGGATCC
TGCTGGCCAGAAAGCAAGCGGGAAAGGCAATAAATCCAAGAAATTGTCCCAACAACCACCA
ATTNTTACGGAGGAATATTATTAGCCAGCAAGGAGTGGAGTTTTGGTTTACTTGATTTT
ACTGNTTTTNTGGTTCATGGAATCTTTATTTTTAATTGGAGTTAAAAANCNCAGGNAAAT
GTNTTTTGAAATTGCACCTTNTATNGAATTNTTTTAAAGACACAANTTNGGGCTNTT
CCNAAAAAAAAAAAAA

Sequence 2157

CCGGGCAGGTACCATTGGAGTTTAATTGCTTCGCTCCGATGAATGAATTCCTGGCCAAT
GCACCAAAATGATACGGCTCCGATGACTGGAGGAACACCAGGGTCCTTGGTCTCGCACCA
GTTTAGATAAAATGACACAGACACACATGTAATGGTTTTAAGGAGTGGAGAGTTTATTAG
GCAAGAAGGAAGGAAGAAGAAAACAGCTCCCCATACAGAGACAGAGGGAGGGGGGATTA
GAACAAACAGAACTTCCCCGCGTACCT

Sequence 2158

CCGGGCAGGTACAGCGTCATATAGGCTTTGCCTTTAATGATCTCTTACGGTTAGAAAACA
CAATAAAACAACTGTTCCGGCTACTGGACAGGTTGTATATTACCAGATCATCACTAGCC
AGATGTNACGTTGGCACATTTGAAGTCCTTTATTGAAATTCATAAATAAAGAATTGTTT
TTTCTTTGTGTTTTAATAAGAGTTCAAGGAATTGNTCAGAGTCTTGTAATGTTATTT
TAATAATCCCTTTTAAATTTTTATCNTGTTGCTGTTTACCCTCTNTGAAATATGNATTT
TATTTTAGATTTGCCTAATGNCCANTTCAATTCAGGNAAAATGCCCAAAGAGGGGTAT
TTCCCTTNGGGGGAAAAANNGGGGNCCNTCTTTACCAAGTGGTAAAANTTTTTTTCCC
TCCCTTTTAAACCCTTTTGTCTTAATCATTCCAANTGNGGCANGNAAATTTTTTCCCTT
AATNCCCCTTTGGTTGAAGNGGCAANGTTTGTGTTGGAACCTTGGAAGTTT

Sequence 2159

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCCATCCTACCCGG
CCTGGGCTGACCCATGGGGAAGGCTGGCTAATTCAGTGCTTCTGCTTGGTTGTTACAGGG
CCATTTACAGTTTGGGTGTTTTCTGGGGATGTTAACATGGGATTCAGGCTCAACTCACAA
GAACTTTTCCATCTCATGATGGATGCTGTTGGGCATGTCCAATGTATGACTTCATGAGT
TACACAGATGCTAATTCGTAGGGGCACTTGAATCACATGGTTGTTTTGTGTCCTATGGT
CAAGCATTCTATCTTATCAGGGCCTACAGTAACATGCCAAAAGTTGCTTCCAACATATTT
CTCTGCTTTGGATG

Sequence 2160

AGTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATCCCCAGTCGTGGCCCTCTGGACAA
GTGGCGGGCCCTGCACTCATGAGGGCTTCCAATGTGCTGCCCCCTCTTAATACTCATTG
TCAATTTGAGAAAAAGGACATATGAGTTTTTGATTTATTAATGAACTTCCTTTGAAAA
ACTGCTTTGAATTATGATCTCTGATTCATTGTCCATTTTACTACCAAATATTAACAAAGG
CCTTATTAATTTTTATATAAATTATATCTTGNCCATAAAAAAAAAAAAAAAAAAAAAA

TABLE 1
360/467

Sequence 2161

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCAGGTACCCACGTAAAGACGTTAGGTCA
AGGTGTAGCCCATGAGGTGGCAAGAAATGGGCTACATTTTCTACCCAGAAAACTACGAT
AGCCCTTATGAACTTAAGGGTCGTTGAAAANAANGANTCANAANTNTANAAAAAATN
ANGNNCCTN

Sequence 2162

NCCGGNCAGGTACGCGGGGCACAGCGGCTTNCCTTGATCCTTGCCACCCGCGACTGAACAC
CGACAGCAGCATGNCTCACCATGAAGTTGCTGATGGTCCTAATGCTNGNGGTCCCTTNC
CAACNACTGTTTACGCANGGCTTCTGNCATGCTCCCTTTATTTGGAGAATTGNGANTTTT
TCAAGNACAATTNCAATTNCACCAAGTTGTTCTAATNACCTGAAATATCCAACAGANACN
NTTTTTNAANGAAGTTTTTANTAANACCNNACAANTGGCCNACTTACNAAAATTGGCCA
TTATTATTGAAATNTGTAANNNGNANATTGTTT

Sequence 2163

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGGGACAACACAAA
TACTGCAACTCCAACACTATGGCAATAACAATCACAGCAATGACCCAAACATCCAAC
TGTCAGTATTCCTTCCTCAGGTTTAGGATATCCTGGATAATTTGAGACTGGAGGCTTGT
AAGTAGGCCTAGGACCTGAGGCACTGGACGCTGGAGATTTTGTAGTGGAAGAAGTCGACA
CTTTAAGACACTTTGGAAGTGGGGGATCCCAAGTACTTGTGGAAGGTGGACACCATCACA
TCCAGGGCCTTCTCAGAGGGGCACGCCATGACAGCAGTCAGGATCAAACCAAGAAAGAAG
AAGCGCTTAGGAGAGAGGGGTTGTAGAGAGGGGGAAAGAATTCCCGCGTACCTTGCCCCG
GGCGGCCCGCTCTAGAACTAGGTGGGATTCCCCCNGGCTTGCCGGGAATTCNATTTTCA
AAGCTTTNTCGGATNACCCGGCGACCCTTNCAGGGGGGG

Sequence 2164

ACTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT
TTTTTGGCAGATGGNGTCTTGCTCTGTTGCCCAAGCTGGAGNGNAGGGGCGCAATCTTG
GCTCACTGCAACCTCTCCTCCAGGTTACGCCATTCTCCTGCCTNAGCCTCCCAAGTA
GCTGGGACTACAGGNGCCAGCCACCACGCCTGGCTAATTTTTTGTATTTTAGTAGAGAC
GGGATTTCACTGTGTTAGCCAGGATGGTCTCAAACCTCCAGACCTGGNGATCCGCCACCT
GGGGCTCCCNAAAGNGCTGGGATTACNGGCATGAGCCACTGGGCCCNNGCAAAAAACAAC
TTTTTAAAAATGGACCCTGGCCCNNGGGCGGGGCCGTTTTTAAAACTAANGGGGGATNC
CCCCCNGGCCTNGCANGGAATTTCCAANNATCAAAGCTTTTNTTTGGATAACCCGCCNN
CCCCNNTNNGGGGGGGGGG

Sequence 2165

AGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTGCCAAACTTGTTTACT
GAGAGCCCTAAGGAACTAAACTGCCATAATGCCGNGCACAGCTTGNAAGCANTTAGAG
TAAGCAAGATTAGTTTTCTCCTCCAGTTCCAGCAGGCCTGGCTGAAGGCCANG
AGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAANTNGCAATAAGGAAGAAATGCCA
TCCCCATGGTAGGCANACNCAATANATTTNTGGAAACCCACCTNTTCCCGGATCANGG
CCTTTCCATTTGCTCACCGGATGCNTNACCGCCTGGGGCCGGGCCGNCTTCTAAGAACH
TAGNTGGGATCCCCCGGGGCTTGGAAGGGAAAATTTCTAATAATTCAAAGCCTTTAAN
TNGGAATACCCCGTNCGGAACCCCTTCCGAGGGGGGGGGGGGGCCCCCGGGTTACCCCA
AGGCTTTTTTTGGNNTTCC

Sequence 2166

CCGGGCAGGTACGCGGNGACGAAGTTCGGTCCAGGTCTCTGACTTCGGGCTTGTTTCGCT
GGTGGCNGTCGGAGCCGAGCCGACTGGTCAGGATGANCACGGACGTGCAGNTCGCCATC
TTCGACAACATG

Sequence 2167

AGGTACTCCTGGGCAACAGCGAGACTCCGTNTCAAAAAAAAAAAAAAAAAAGAAACCAT
TTATTTTAAAAATGATTAGATTGCTATGCCTCAACTCATAGAAGATGAACCCTTCAAGAA
AACGTGAAGNAGGAACCGGGNGGGCCANNAAATGAAAACAGGCAAGTANAGNTATTANTT
NGGAAAAACATTTTNTCAACACCAAATGTAAAAAGACTTTCTTTTGNTAAACCTGGG

TABLE 1
361/467

ATTATGAGNAAGAACTTTTTCAATTGGGGTTANNTTCTAGGGATANACTCAAGTATNTTT
GCANCCACCTTAANAAAACCTTGCCATTAGAAAAACCTGNAAAAGGTTTATTGTTTCCCA
GNATAACTTTTCCGTTGTTTTACCCAAATTTTTNTTTAAGAACTTTG

Sequence 2168

AGGTACTCCAGGGCTTCATTTCATATTTCTTCCAATTTGTAGACGAACCCAAGGAGGCTC
AAGCTTTCCAGATCTAATGCCCTTTCTCCGAAGTTTCCTTAAAACCAATTTCTTCAAAGAA
TTTGATACTTTTATCCCTTTGTTAATGATAGCCCTGTTCTATTTTTATAGCTTTTTAAAT
AATGGATAATTTGCATTGACTGTGAGATTTCTTTGAAATTCCTGNAAACNCGACNCATN
AGTTGGAAAATTGNTATGTCTGTGATTGTTTTCTTCTACCACTGNTTTTCATCGCNAT
TAAACAATTTTTTTGAAAAATTTCTCTTCAAGCCTTNTCTGTGGATTGGCCTGCCT
TCTAATATTACCAATTTCTTGGCCANGGGTCTTAGGATGTAGCCCACCCTCAAAAATG
TGGGGCCTTTTTTTTTTCCACCTGGCAAGAATTCAAANAATCGGAAAAATAATGGGGCC
NTG

Sequence 2169

CGAGGTACATTTTNAAGAGTTGTTTTTTGGCCGGNNTTCAGTGGCTCANGCCTGAAATN
CCAGCACTTTGGGAGGCCGAGGTGGGCGGANCACGAGGGCTGGAGATNGAGACCATCCTG
GCTAACAAAAAGAAANCCCGTCTCTACNAAAAATACAANAAATTAGCCAGGCGNGGG
NGGCTGNACNCTAGTAGGCCCCAGGCCTACTTTNGGCAGGCCTGAGTGCAGGNAGTAA
TGGNCCGCGCANCCCTGNCAAGNGAAANTAAGGNTNTGCNNGTCGGAGNCCCAAAGNANT
GCGGNCCCTTGCCACNCCCAAGGCNCTNNGGCCAAACCAGAAGGCNAAAGGANCTCCCT
ATTCTCNAANAACNCAAGATATACNCAANNCGAGGGAGGTTTNNGGTTNCTTACCTC
ANTTGGGCNNCAAATTNATAAGGGNTCAATANNANCNAGGNNTAACCAATAAANNACCCN
CACAGGGGNNTCCTTTAACCAAAACCCNTAAAANNACCTGGGGTCAAGTCCNAAATAAAA
A

Sequence 2170

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTACCTGCTGGGAGAAGTT
TCTGAACAACNATATCTGGGATACACAGAAAAGTNTGGAAGANGAGAAAGAAANGCCTAA
ATNGGAATGAGATCCAAGACTAAACGCNAGAGCTAGATTGAGCCGCATTTGAAANCTCCT
TCCNNTTGGGGCNTTGGCAGAGGGGGAGAAAAGGCTTCAAAGGAACTNNGGTGGCATNANC
ACCCCCCTCCCCCAATGAGGACACCT

Sequence 2171

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCACTGAGCTCAAGA
CACACTTGGTGCTTGCACTGCTGATACCTGCTCTTTGCCGGCCCCCGCTACCATCCCAT
GTGGAATCTGTGAGTGTCTCTTAAGTAGCGTGGGCTAGCCAATCTGCTCGTTNATGGGT
GTATTTGTAACTCCGAATTCATATGTAATANGGATGCAAGTCTAAGCGTTTCATGTGG
ACATAAATGTATCTAAATAAACTTTCCCTAGCACTGTGGCTGACCTCACCTTACTTTT
ATACTTTAGTATGAACTGATGAGAACTTTGGTAGNGAGTATTTTTTTATATATATACA
TATATATGTATCTATCTATATATATCTCAAGCATCTTTCAGGTCTTGTGTNGTGGNT
TTTTTTAAAGCCCTGTTGTAAAAAAATTACTATTGTGGGATGGGCAGTCTCTCACATC
ACAGATGTNGAAAAGNATAATTTTTATANTNNGTATTTNCAANAAAAATAAAATCTGGGG
AAAGGTNNCATTCTNTACTGGNGGNCCAAAAAATCAATNGGTTTTGTNTGNCCAAAAAA
AAATATTAATAAATAAATATANTNTNTTGAACCTAAAAAAA

Sequence 2172

AGGGTACATTTTTAAAGAGTTGTTTTTTGGCCGGGCGCAGTGGCTCATGCNTGTAATCCC
AGNACTTTGGGNGGCCGNGGNGGGCGGATCACGAGGTCTGGAGTTTGAGACCATCCTGGC
TAACACAGTGAAATCCCGTCTNTACTAAAAATACAAAAAATTTAGCCAGGCGTGGTGGG
CTGNNAACCAAGTGTNNCAGNTACTTGGGAGGCTGAGGNANNGANAATGGGCCNTGAACC
TGGAAGGAAGAGGTTGCANTGAGCCAAAAAANTGCGCCCTTGCAACTNCAGCCTTGGGCA
ACAAGANCAAGACTCCCATCTCAAGAAAAAAACAAATAAGNAAAAGTACCTTGCCCG
GGCGGCCCGCTCTANAACTAGNGGATCCCCCGGGGCTGNAGGGAAANTCTATANCAA
GCTTANNGAATTCCGCCNACCTNGGAGGGGGG

TABLE 1
362/467

Sequence 2173

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATCCCAGCCCCCAGGTTTCGC
CTAATAGTCTTGGCTACTTCCCTACAGCTGCTAATCTTAGCGGTGTCCCTCCACAGCCTG
GCACGGTGGTCAGAATGCAGGGCCTGGCCTACAATACTGGAGTTAAGGAAATTTCTAACT
TCTTCCAAGGTTACCAAGTATGCAACCGAGGATGGACTTATACACACAAATGACCAGGCCA
GGACTCTACCCAAAGAATGGGTTTGTATTTAAGGGCCCCAGCAGTTAGAACATCCTCAGA
AAAGAAGTGTTTTGAAAGATGTATGGTGATCTTGAAACCTCCAGACACAAGAAAACCTTCTA
GCAAATTCAGGGGAAGTTTGTCTACACTCAGGCTGCAGTATTTTCAGCAAACCTTGATTGG

Sequence 2174

CCGCGGTGGCGGCCGAGGTACGCGGGGACTCGCGTCGGTTGGCGACTCCCGGACGTAGGT
AGTTTGTGGGCGGGTCTGAGGCCTTGCTTCTTTACTTTTCCACTCTAGGCCACGA
TGCCGCAGTACGCGGGGGGGTGAAGAAGGGGCCGCTTCAAGCAACAGCGACGCAAGAT
GGCAGCCACCACGGGCTCGGGAGTAAAGTCCCTCGCAATTTCCGACTGTTGGAAGAACT
CGAAGAAGGCCAGAAAGGAGTAGGAGATGGCACAGTTAGCTGGGGTCTAGAAGATGACGA
AGACATGACACTTACAAGATGGACAGGGATGATAATTGGGCCTCCAAGAACAATTTATGA
AAACCGAATATACAGCCTTAAATAGAATGTGGGACCTAAATACCCAGAAGCACCCCCCT
TTGTAAGATTTGTAACAAAATTAATATGAATGGAGTAAATAG

Sequence 2175

CCGCGGTGGCGGCCGAGGTACCTTAAAGTCCTCCTGGCTCTGAAGCTTCATAAGATGCGT
GAAGAAGGTGAAGAGGAAGGNGAAGGAGTCGAGCGGCCGCCGGGCAGGTACTTTTTTTT
TTTTTTTTTTTTTTTTTGGGGTTTATCATATTTAGGTTATTTATTAATGAAAATATATG
ACATTTTCAGGAATACAAATTTTGACCCTGTGACCTCAAATGCGTGCAACAAGATGTTT
AATACAGAAAATAACACAAAAACTGTTGTTACAGGGGTTAGAATTTTAACTTTA

Sequence 2176

CCGCGGTGGCGGCCGAGGTACTTCTTACAGTCTTCAGGAAATTCATTAAATCAGTGCCTC
CAGTTCCTTTGGCTTCCAGTTTTGAAGGGTCTTCAGAGGTCTTATTCTCCTTTGGCTGCT
GGCTTGCAAGAAATCAGGATGTACTGTTCTGTTGGCCGAGTGGAGACTGGTGTTCTCAA
CCCGGTATGGTGGTCACCTTTGCTCCAGTCAAGTTACAACGGAAGTAAATCTGTGCGAA
ATGCACCATGAAGCTTTGAGTGAAGCTCTTCTGGGGACAATGTGGGCTTCAATGTC

Sequence 2177

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTGTAGAGTGGTGCTGCTTTAATTCATAAATC
ACAAATAAAAGCCAATTAGCTCTATAACTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAGGAAAAAAAAAAAAAAAAAAAAAAAAAGGTCCGNNCANTCGNG
GNGGCNTAACNCNCTNNGGGNNGGNTNTAGGGNTGGAAAACNCTNAAAATNNNTGTTTTN
ANNNGGNTAAAGNNTTGAAATTTGCCAGNTTNTAAAGTCATTAAAGNCAAAGTTTTT
TTAAGGGGTNTTTTTTTTTTAANAAAACCCATTAAACNTTCCATTGGGCCTTTANAAANGG
CCCCCGGGGTTTTNGGNAAAANTNTTTTTTTNNCCCNNTTTTTNTGAANAAAAANN
GGGGCCCCCAANTTTTTNGNTGNCCCCNCCCNCCCCANTTGGGGGGNNGGNGGGGAN
ANCCCCNTTTTTTTTTTT

Sequence 2178

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTT
TTTTTTTTTTTTTGCCAATTGTTATTTAGTTTTATTTTATAATCATAAACTTAACCTG
CAATCCAGCTAGGCNTGGGAGGGAACAAGGAAAACATGGAACCCAAAGGGAAGTGCAGCG
AGAGCACAAAGATTCTAGGATACTGCGAGCAAATGGGGTGGNNGGGTGCTCTCCTGAGCT
ACANAAGGAATGATCTGGTGGCAANAAATTAACCANTGCTTTTATTATCNANGCACTTNN
CACTATGCACTTTTTCTGAAATATTTTGTAAACACTTTTTTGATTTTTGCCATTTGAA

Sequence 2179

CCGGCAGGTACAAATGATGAAACGGAAAGACAAAGGAAATTTTCATTTTTGAAGAAA
AGTGTTCAGTGTTAATGGAGCCNNGGGAAACCACATGGACTTTGGTCAGCTCTATCAGTT
CTTAACACCAAAGGATGTGGGGATGTTTTCCAGATGTTCTTTGGTGANAAGGACAATG

TABLE 1

363/467

ACATCAAGAGTNGTTGAANGTATCTTGCCACTGNTGGCCTTTTGATTTTTNTCCCACTT
TTTCTTGAAAGATTAAGTAATTTTATTTTAGTTCCATTCTAGAATGTTGGGGAGTGNGGC
ACAAGAAAAATANTATANCTGAAATGCATCTGTTAAAAATGTNATGATTGNAAGCATAA
CTGAGTTTCA

Sequence 2180

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGTAGCATGCCAGGAAAGGAAGAGAC
TGGGATGGTTTTTATCTGTCGCTTTCTTAAATCAAGGGCCGCCGGGCCGAGATGGATG
GAGGGACCGGGGATTTGGGAACTCGAAAACGAGCTGAGGGAAGGGAGCCTGTGGAAATAG
ACTGGAGTCTGGGTAGTGTCTGTTTCTAGAGAATGGTCTCGAAGTAACTTCTCGGTAAAG
TCTTCACGGAATTTCCAGACCACGCTTGCCCACTGGGAGGCTTTTAGGACCCGAGACGTG
TGCAGGCTTTTCCAGCCAAAATGAAGTTTAAATCCCTTTGTGACTTCCGACCGAAGCAAGA
ATCGCAAAGGCATTTCAATGCACCTTCCCACATTCTGAAGGAAGATTATGTCTTCCCCTC
TT

Sequence 2181

TTTTTTTTTTTTNGTTACATAAATTAACCCATTTATTATAGGCCAGTGATGTCTCAA
GAGTAGAGGAGCGTCTACTGGTCTTCAACTCCTTCAGTCTTCTGATGGCGGACTTTACC
GNGACAGCGGAAGTGGTATTGNACCTGATTTTATTTCCAGTTTTATCCGAATCCACTGG
GGAATGGGACGATTTTGCTTTTGTCTTGCCAGGAATCGCTTAATCCT

Sequence 2182

AGGTACTCATCGGCCAGCACGGAGATGCACAGGTTAAATGGTTTACCATCCTGAAAGGGC
ATATTNGGCATGTACCTCATACTGCCAAGCCCCATTACGCGGGCTGTTTATGACCACC
CAATGACCAAAGTACCTGCCCG

Sequence 2183

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGGCCCGAAGCGTT
TACTTTGAAAAAATTAAGAGTGTTCAAAGNAGGCCCGAGCCGCCTGGATACCGCAGGTAG
GAATAATGGAATAAGGACCGCGGTTCTATTTGNTGGTTTTCGGAAGTGAAGCCATGATT
AAGAGGGA

Sequence 2184

AGGTACGCGGGGACTCGCGTCGGTTGGCGACTCCCGGACGTAGGTAGTTTGTGGGCCGG
GTTCTGAGGCCTTGCTTCTTTACTTTTCCACTCTAGGCCACGATGCCGCAGTACGCGG
GGGGGTGAAGAAGGGGCCGGCCTTCAAGCAACAGCGACGCAAGATGGCAGCCACCACGGG
CTCGGGAGTAAAAGTCCCTCGCAATTTCCGACTGTTGGAAGAACTCGAAGAAGGCCAGAA
AGGAGTAGGAGATGGCACAGTTAGCTGGGCTCTAGAAGATGACGAAGACATGACACTTAC
AAGATGGACAGGGATGATAATTGGGCCTCAAGAACAATTTATGAAAACCGAATATACAG
CCTTAAATAGAATGTGGACCTAAATACCCAGAAGCACCCCCCTTTGTAAGATTTGTAAC
AAAAATTAATATGAATGGAGTAAATAGTTCTAATGGAGTGGTGGACCCAAGAGCCATATC
AGTGCTAGCAAAAATG

Sequence 2185

CCGCGGNGGCGGCCGCCCGGGCCGGTACGCGGGGAACTGAAAATCCACAAGACAGANTAN
CCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCTGCAGAACGGCTGCCTAATTTACAGC
AACCATGAGGAAAGGCCACTTAAGGATGCAGCAAGAAGGAGCCATCTGCAATCCAGGAAG
AAATTCCTTGCCAGGAACCAAAATTGGTTGTACCTTCATCTAGGACTTCTAGCCTCGAGA
ACTTACAAATGGTGATGATCATNAGGTCAAGGATAGTCTGGAGCAATTGAGATGTCACTT
TAC

Sequence 2186

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTNGGGNA
AAGAAACCTTTAATGAGGATTCAAGGTTAATAAGGAAGACNCAGAGGGCCAGCACTCAGC
CCCAACCTNCTACGTGTACCAAGAAAAATAAGGAAGAGGCTGCAGAATATGCTAAACTT
TTGGCCAAGAGAATGAAGGAGGCTAAGGAGAAGCGCCAGGAACAAATTGCGAAGAGACNC
ANACTTTCCTNTCTGCGAGCTTNTACTTNTAAGTCTGAATCCAGTCAGAAATAAGATTTT
TTNGNTAACAAATAAATAAGATCAGAGTCGGTAAAAAAA

TABLE 1
364/467

Sequence 2187

CCGCGGTGGCGGCCGCCGGGCAGGTACAAAGACTATTGTAGAGACTATCCGGGTTAGTT
TGCAAGGGAAGCCAATGATGAGTAATTTGAAAGAAATTCACCTGGTGAGCAATGAGGACC
CTACTGTTGCTGCCTTTAAAGCTGCTTCAGAATTCATCCTAGGGAAGAGTGAGCTGGGAC
AAGAAACCACCCCTTCTTTCAATGCAATGGTCGTGAACAACCTGACCCTCCAGATTGTCC
AGGGCCACATTGAATGGCAGACGGCAGATGTAATTGTTAATTCTGTAAACCCACATGATA
TTACAGTTGGACCTGTGGCAAAGTCAATTCTACAACAAGCAGGAGTTGAAATGAAATCGG
AATTTCTTGCCACAAAGGCTAAACAGTTTCAACGGTCCCAGTTGGTACCTCGGCCGCTCT
AGAACTAG

Sequence 2188

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCCAGGACAAA
TCTCTCCACTTGAAGGAGATCCCAATCCTTCTGCAGCCCCAACATCCACCTGCGCACCT
AGGAAAATGCCAAAAGGATTTCAATATCCAAACAACTGGCTTCAGTGAAAGCTCTGAGG
AAGTGCTCAGATCTGGAAAAAGCTATTGCCACCACTGCTCTGATTTTCAGAAATTCCTCT
GACTCTGATGGTAAACTTGAAAAAGCTATTGCCAAAGATCTGCTGCAAACCCAATTTAGG
AATTTGCGCAGAGGGACAAGAAACCAAGCCAAAATACAGAGAGATCCTTTCTGAACTTGAT
GAGCACACAGAAAATAAGCTAGATTTTGAAGACTTCATGATCTTGCTCTTAAGCATCACT
GTCATGTCAGATCTGCTACAAAATATACGGAATGTAATAATTATGAAATGAACAGTTTTA
AATATGCTGTATAAAATAATGGCAAAAGACAGTGTTATTAATAATGTTTCCATCTCAAAA
AAAAAAAAAAAAAAAA

Sequence 2189

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAAGTTGAAAGTCACA
AAACCATAGAAAAGTCTCAGTTTCTACTGTAGAATTCTTGGCATTTCAGTAGTCACAGT
TAAACTTGTCTAGGTTTTTCAGATGCTCTTTCCAGGACTTCATATGTTTTGATATTTT
TAAAAATCTTTCTTTCAACTTTTTTGATTATAAGCCTTGCTTGCTTCGATTTGGGATT
AGGCATCGTTGTCTTTATTTCTTTCCAGGGCAATAATCACTTCTATTTTGTCACAGTTG
TTACTTGGGTACCTAAAACCCGAAGAACCTTCTGTAAGAAGTGTGGCAAGCATCAGCCTC
ACAAAGTGACACAGTATAAGAAGGGCAAGGATTCTTTGTATGCCCAGGGAAGGAGGCGCT
ATGATCGGAAGCAGAGTGGCTATGGTGGGCAGACAAAGCCAATTTCCGGAAGAAGGCTA
AAGACCACAAAGAAAGA

Sequence 2190

CCGCGGTGGCGGCCGAGGNACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TGCNANCACANAGGTGAGCAACAAGTTATTTTGCAGCTAGCAAGGNAACAGGGTAGGGC
ATGGTTNCATGTTTAGGTCAACTTCCTTTGTCGNGGTTGATTGGTTTGTCTTTATGGGGG
GGGGNGGGNAGNNGAANTCCAATNTGAATCCACAGAAACCAGGGGCTGTANAAACANA
ACCTGANAAGAACGAGCACTCAACCNAGCTNACTNNGGTTCAANNAAAAAATNCCAANA
AGGAAAGCCAA

Sequence 2191

CCGCGGTGGCGGCCGAGGTACAAAGATAAGTCATCTCAGTAAAAGGTCTATTATCTAACT
TGCCAAACTTGTTTACTGAGAGCCCTAAGGAACCTAAAACCTGCCATAATGCCGTGCACAGC
TTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAGTTCCCTCAGCAGGC
CTGGCTGAAGGCCCAGGAGGGANGGANTTTNANACCCCTTTAAANNNTNNTTTTCGCNT
TAAGAAGAGNCCCCCGNGGGNGNCNCCCTTTTTTTTGAANCNCCCTTTTCCCCGGGA
ATNAGGGTTTTTTTTTTTTTTNAAAAANTCCCCCNNGGGGGGNGCCNNCNNTNTTTTT
TTTTTTTTTNGAANCCCCCCCCCCCCCNGGTTNNNNCNNTCCTTCTTTNACAAAAAAA
AAAAAATTNCCNCCNCCCCCAAAAAAANNNNTTTTTTTNTCCCNCCCCCNNTTTT
TANAAAAAATAAAAAANTTTTTTTTTTTTTTTTTTTTTT

Sequence 2192

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGGCCGAGA
GAAGCAGTAGTCAATAAAGAGAGTGCCGTATTTGCGAGATTGGAGCTGAGCTGTGGCTGC
CAGAAGATAGCGAACGAATGGAACTGAAAGTGGAATCAGGAAAAGGTAATGGAAGAAG

TABLE 1
365/467

AAAGCACTGAAAAGAAAAAGAAGTTGAAAAAAGAAACGGTCACGAGTAAACAGGTGCT
TGCAGATATTGCTAAGCAAGTGGACTTCTGGTTTGGGGATGCAAACTTTCACAAGGATAG
ATTTCTTCGAGAACAGATAGAAAAATCTAGAGATGGATATGTTGATATATCACTACTTGT
GTCTTTTAACAAAATGAAAAATTGACTACTGATGGGAAGTTAATTGCCAGAGCATTGAG
AAGTTCAGCTGTTGTAGAGCTTGATTTGGAAGGCACCAGAATCCGGAGGAAAAACCTCT
GGGGGAAAGACCAAAGGA

Sequence 2193

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTCCATGGGTCCACAA
AATCCTCTTCAGCTTCTGTGGCATCTGGGCCATGATTACTGGTAGGTGCTGGGTTCCTG
GAGGACAGTCAGCCTTGTAACTCTCCCCGCGGCAGCTTTGTAGCTCATTTTTATGACAC
CAACATCTTTACTGCAGAATCAATTTATCCCAGGTTGTGGAAGACACTGCAGAGGTGGC
CACTGGTCACGCTGGGCAGTTGAGCTGCTGAGAGTCCCCGCGTACTATCTTCACTCTTT
TTTTTTCAGAAGCCAATGTTCTCTAAATCTGCAGCTTCATTCCACAGCTTTACAGAATCA
TAATCTCTTGAATATATTTCCAATGTTATTAATAAATAAATAATCATACAAGATATATTT
AGCACATTAATACTTAAGAGGTTACAGTATAACTGTCCAGACCTCCAGGTACCTGCCCGG
GC

Sequence 2194

GTGGCGGCCGCCCGCCAGGTACATTTTTAAAGAGTTGTTTTTNGGCCGNGCGCAGTGGCT
CATGCCTGTAATCCAGCACTTNGGGAGGCCGAGGTGGGCGGATCACGAGGTCTGGANTT
TGAGACCATNCTGNCTAACACAGTGAATCCCGTCTCTACTAAAAATACAAAAAATTANCC
AGGCGTGGTGGCTGGCACCTGTAGTCCCAGCTACTTGGGAGGCTGANGCAGGANAATGGC
GTGAACCTGGAAGGAAGAGGTTGCAGTGAGCCAAGATTGCGCCCCTGCACTCCAGCCTGG
GCAACANAGCANGACTCCATCTNANANAAAAAANCAANGAGNNGTTTTCTNA
TGTTCAATTATAGGGCATTACAGTTACATNGNCCGAAGGTCTTACAATAATCACTGGGTA
GCAATANATGCTTCNGGCCACATGATGCTGATTAGTTCNCANTTTTCATNCAGTTGACA
ATATTAACCCCCATTNCTCCCTCCCTGCCCAAGGNTCATAAANTNGTGACTGCCTAACAA
CCAAAATTNGGAAGGCCANTCTTNATTTTCACTCAGACTTCTTGGAACCTGAAAGATTA
AACNTTTTGGCTAACCCCTGGAAATATCTTTTATCTCACTTATAGCNTTNAAGGCCATTG
NATNAAAACNTGATTTCTTGGAAGGGCCATACCCATAAANTCAAGGGGGGTTTTCTTG
AAAAGTAAANGNTTCCAAATNAANNCCAAACANTTTCAACCCCAAAAAAAAAAAAAA

Sequence 2195

AGGTACACTGAACACCAAGGCTCTCACTCTTGAGTCTAGGGCACCATATATATAAAGGGA
GTTTCGGAACCTTGTAAGGCAATCCTATTGTTCTAGTCAAATCACACTGAAATCCGGAGG
CCTGGTGTGAGAACCTACNAGCGGACACCGGGCATTTAATATTTTTGCACACCCACACA
GCCAGGGCCAAAGTGGTCAAGGCACTCTCCTAACACAGACAGGATCTTCTGAGTTGCAAT
TCTTTCTGAAGGAACATTTTTCACTTGAAATTCATCAGAAAATTTCTGAGATCTTGTG
AGCGCTGAGGTTTCTGGTTTCATCTAGATCCAAAACATGTCCAAATCACATCCTAACTT
CCAAAAGTGTTGACTGAGGAGCCAAAGGGTCTGACTATGCAGTCTGGAAAATACCCCGG
CGGCCATGTCTTCAATAAGAGAACAGGTGAGATATCGGAGCTTAAGTGTTCTCCTCTGTT
AGCTGGAACCTCCTTCAAGAAGAGTGTTCAAGCTTGATCCGTCTATACTTTCTGCATAACA
AAGTAATTCAAAAAGCTGCTTGTTGAACCGTGGCACTGANTACTTGACCCGTACCTTG
CCCCGGGCGGGCCCTNTAAGAACTAGTGGATCCCCCGG

Sequence 2196

CGCCCGGGCAGGTACAGTGGTCCTTTTAGAGTTGGACTTCTAGACTCACCTGTTCTCAC
TCCCTGTTTTAATTCAACCCAGCCATGCAATGCCAAATAATAGAATTGCTCCCTACCAGC
TGAACAGGGAGGAGTCTGTGCAGTCTGACACTTGTGTTGAACATGGCTAAATACAATGG
GTATCGCTGAGACTAAGTTGTAGAAATTAACAAATGTGCTGCTTGGTTAAATGGCTACA
CTCATCTGACTCATTCTTTATTCTATTTTAGTTGGTTTGATCTTGCTTAAGGTGCGTAG
TCCAACCTCTGGTATTACCCTCCTAATAGTCATACTAGTAGTCATACTCCCTGGTGTAGT
GTATTCTTAAAGCTTTAAATGTCTGCATGCAGCCAGCCATCAAAAGTGAATGGTCTC
TCTTGGCTGGAATTACCAAACTCAGAGAAAATGTGTCATNAGGAGGAACATCATAACC

TABLE 1

366/467

CCATGGANGGAAAAAAGCCCCCAAATGGGTGGGAACTGGATAATAAGCACTNATGCTTT
AAGAATTGGGCACACTTCTCACCTAAGGTGAGCGCATTGNGNCCAGGGGGTGCTTAAATG
CTTACATACCTCCAAGTGGAAATGGNTAAGGGAAGAAGATTGATNCCAATTTNAAAAAAA
AATTTAAANCCANTTTNAAAAAAA

Sequence 2197

CGCCCGGCAGGTACGCGGGGGTGGAGAGAGGCCTCTAGACTTCAGTTTCAGTTTCCTGGC
TCTGGGCAGCAGCAAGAATTCCTCTGCCCCCATCCTACCATTCACTGTCTTGCCGGCAG
CCAGCTGAGAGCAATGGGAAATGGGAGTCCAGCTGTCCTCGGTGCCTGCTCAGAAGCTG
GGTTGGTTTATCCAGGAATACCTGAAGCCCTACGAAGAATGTCAGACACTGATCGACGAG
ATGGTGAACACCATCTGTGACGTCTGCAGGAACCCGAACAGTTCCCCCTGGTGCAGGGA
GTGGCCATAGGTGGCTCCTATGGACGGAAAACAGTCTTAAGAGGCAACTCCGATGGTACC
T

Sequence 2198

CCGGGCAGGTACCAAAATTGTAAGAAGAAGCTTGGGAAGCTGCCACCTCAGTATGCCCTG
GAGCTCCTGACGGTCTATGCTTGGGAGCGAGGGAGCATGAAAACACATTTCAACACAGCC
CAGGGATTTTCGGACGGCTTGGAAATAGTCATAAACTACCAGCAACTCTGCATCTACTGGA
CAAAGTATTATGACTTTAAAAACCCATTATTGAAAAGTACACAGGAGGCAAAGTGTTTC
ACATTATAGACTTCACTTCCAACCTCCTTGGAAATGTTCAATTTCTTTGGCTTACAGGAGAGA
CTAGACAGGAAGGCCAGGCAATGCTTAGGCAACTAAAATGAGGTTGGGGTAAATGCTAAC
GTCACCCTCACAGGGATGGCCACGGGGACTGTTATTGCAAGCTGGTTTTCTAGGCCTGT
TAGCTGGAAGCATGGTGAGCACCAATTTCTGGGACGCTCAAGGCCGTGTGCGGGCTTCAA
GTCATCTTCACCACACCANGTACCTTNGGNGCGNTTCTANNACTANTGGGATNCCCCCGG
GCTGTAGGGAATTTNANTTTNAAGCCTTATTCGATTACCCGTTGANCCTCTGGGGGGGG
GGNC

Sequence 2199

CCGCGGTGGCGGCCCGAGGTACAAGATNGNCATCTCAGTAAAAGGTCTATTATCTAACTN
GCCAAACTTGTTNACTGAGAGCCCTANGGAAGTAAAGTGGCATAATGCCGTGCACAGCT
TGAAAAGCAATTAGAGTAAGCANGATTAGTTTTCTCCCTTNCAGNCTNAGNAGGCCTG
GCTGAAGGCCANGANGGAAGGAANTNTANNANCCANCANTAAAAATAGCNATATGCAAT
NNNAAGAATGCCATCCCATGGAGCACACCA

Sequence 2200

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCGGGCAGGTACACAATTTTTAGAAT
AGTTGATGTCTTTAAGATGGATATTTACAATTTAGTAAAAAAATACAACATGAAGCT
GCTGCTGTCACAGATCACTGTAGTAAAAAGATATAAATGCAATACCATGTCGTAGAACAA
TATATATATCCTCTGATATTTTACAACTTTGTACTGTGTCCAACAGCTGAAGGAATTTG
AGGGGAAGACTTTAGTGTGAGTCACCAAAGAAGGCCTGGAAGTTCAGAGGATGAAGAAG
AGAAAAAGAAGCAGGAAGAGAAAAAAACAAAGTTTGAGAACCTCTGCAAAATCATGAAAG
ACATATTGGAGAAAAAAGTTGA

Sequence 2201

GCTCCACCGTTTTGGCNCNCCGAGGCCCTTGTCTCTTCTCAGTGACTTAAACAATTC
CAGGATCAGAAGAGAAGCCATTTTGACATCCTCGATAAACTGGGGATNNGCTGNANTTC
TGTCTGTTACGAAAGTGGTTGAAAAACAATTTGAGATCCAGAAGTCTTGATGGGTTTAC
CATCCAGGTGTTACAAAAAATCAGAGAATCTCTTTCGAGGTGCTGGCCGCCTTCAACGC
TCTGAGTAAGCATTGCTGGGTGTGAGGAGAGAAAAGCCAAAGAAGCGGTGCCAGACAGC
TCTGTGCAACCTCTAGGCCATGAGTGGGATAGATACCACTGCTGCTTTAAAAAATGGGAG
ACCATAGACCCTCAGGAGAAAAGAATCCCTTCTACCCTGGACTCGCTCTCTTCTCTGGAA
CTAATTCTCCCCATACCCTGATTGTCTTTGGAGAAAATGTTCTGGATTCTAGAATCTA
AGGCAGAGCCTTTTAAGCCATACTGTACCTGCCCG

Sequence 2202

AGGTACAGACAGGGTTTCTTCATGTTGGTCAGGCTGGACTCGAACTCCTGGTCTCAACTG
CCTCAGCCTCCCAAAGTGCTGGATTATAGGCATGAGATACCGTGCCTGGCCTCCATCACT

GATTCTATGTATGCACATGACTCCTTTTTTACTTTTACTTAGGAGGCTTAAACACAATT
ATTCATTCAATATAATTATAAAGCAGAGTCTTTGTTAATTTCTGAAGTTGGTAAAAACAT
TTTTTATATTTTATCTATAGCTCATTAATTTAGGTATCAAAAATGTGTTTTAGTTTAGGT
AGCCCAAGCTGCCAATTGTTTGATATCATCATCCTCTTCTTCTGCCCTCTGGGAAGATGC
TGCTGGGATCGAC

CCGGGCAGGTA CTCCAAAGATT CAGGTTTACTCAGTCATCCAGCAGAGAATGGAAAGTC
AAATTTCTGAATTGCTATGTGTCTGGGTTTCATCCATCCGACATTGAAGTTGACTTACT
GAAGAATGGAGAGAGAATTGAAAAAGTGGAGCATT CAGACTTGCTTT CAGCAAGGACTG
GTCTTTCTATCTCTTGTA CACTGTATGCATCATCAGTCCAAAGTTTTTCAGAGTTCTATG
TGACTGGTTGAGGAAACACTGCTTGAATTTCCCATAGCCTCTGCAGCGGCATCACTGTC
TATGAACTCTTGAAGAAGCTCTTTGTATTCAGGTATAGATATGTCGGAATTGATGGTCTT
TTCAACCATGTCCTCCAGGAGTTTGAGCCAGAATCTGCATAGCAGTG CAGGAGGAGGGC
CGCCAGCATGAGGACCATCAGCAGCTTCATGGCGAGGCGGCTGCTGTCTGTGTT CAGTCG
TGTGTGGCAGGGATCAAGGAAGTTGCTGTCCCCGCGTACCTN

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTGTTGNCAGGATTCAA
GCCGAATGGCTTGCCTNANAGGGNCAATGGCGTTCTGAGATGGTGGCCA

ACACTACTATAGGGTGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTCTTGTTTAT
CAATGGGACGTTCCAGCAATCCACACAAGAGCTCTTTATCCCCAACATCACTGTGAATAA
TAGCGGATCCTATATGTGCCAAGCCCATAACTCAGCCACTGGCCTCAATAGGACCACAGT
CACGATGATCACAGTCTCTGGAAGTGCTCCTGTCCTCTCAGCTGTGGCCACCGTCGGCAT
CACGATTGGAGTGCTGGCCAGGGTGGCTCTGATATAGCAGCCCTGGTGTATTTTCGATAT
TTCAGGAAGACTGGCAGATTGGACCAGACCCTGAATTCCTTAGCTCCTNCAATCCCATT
TTATCCCATGGAACNCTTAAACAANGGGTGGTTTTGGTTCCTGAAGCCCTTTTTTGT
GGGGAATGGGGCACCTTAATGAAAAATTTAAAGGGGAAAAANCCCTCAGGCCTGNNGGGG
NGGGCCCCCTTACAGCCTTTTNTCTAACTNAGAAANCGGGGAAAAATTGNAACCATTGG
GGGAGAAAAATGGACNACTTNCNCACTNTTGGACNGGTTTTTTTCCAAAANTGTNAAAAAA
GAATTCCTTTATTAATGGAAANGGGGTTTTACCCCCCTTTTAAATT

CCACTATAGGTTTATGGAACCTCCCGCGGNGGCCTCACTTTTACCTTCTGGAANCCGC
CCACCACTTTCAAGCTCACTATTGAATCCACGCCGTTCAATGTCACAGAGGGGAAGGAGG
TGCTTCTACTTGTCCACAATCTGCCCCAGCATCTTTTTGGCTACAGCTGGTACAGCTTTC
TTCGTCCTCCATGCTAAGAGATGTAAAAGCTTAAGGGTCAAACAATACCAATTGTATAGG
CTTCAAAAACCATCTAAGTTAGGGCATTCTNTAGTTTTAGCTAAGATACACCTGGAACAC
TGACAAGTCATCACTTACATAGAATAATGTGAAGTAAATTTTTGAAAAATAAATTTAG
TGGAACAATCCTGAAGGATAACACCAGAAGAATAGCAGGTTACCAGTAAGGGGTCAGCCA
ATTTGTTCCAGTCACTTTTGAATCCATGTTCTATAATCTAAAAATTATTCTCTTCCCTA
AGCTGAGAGCTTCCTATCATGTCAGTATCTATGNTATGAAG

[illegible]

GGCGAATTGNNCTCNTTCGCGGTGGCGGCCGAGGTACTGAGAGAGGTGGTGGACATACT

[illegible]

TABLE 1
369/467

GAAACGTCACAGGCTGTCTTCCTTTGGATGTAATGGGACGTCCTGATGACCCA

Sequence 2214

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTTTTTTTNATTAGGGTTGAAAAGGTAAGTCCTATATTANATACATAGGG
GCTGGTAGTCTTATCCTCTNTATAAATACNCACTTTTTGNCAGTCCCCCTCCCTGCCAT
GCAGAGTCCCCATGGCTGAATCTCCCTATGTCTCCAAGNGNGCGTCACTTGCTGTCTNT
GGGCTGGGTCCCATGNGCTGNGCCACAGTCTT

Sequence 2215

CCGGGCAGGTACAATACACTAGAAACCAACATAATGTATTTNTTTAAACCTGTGTGAAA
AAATAAATGTTCCACCAGTAGGGATAGGGGAAAAGTAACCNAAAGAGAGAANNGGAGAAA
GGGAATGCTGGTTTATCTTTGTANGATTGTAATTCGAATGNGAGAAATTTGCAGTATT
TAGCCACTTATTAAGGGAATTTTTTTTTTTGTAAGANTGGAAGACCTGANACNTCTGTT
CAAAATGGCTTTTANTGGAACCTTGNGTNTTGGAGACCGTTAGNGAAAAGGCANACA
AAAACCGTGGTAACCTGGTGGACCTAAAGGGGCNCTGNGTGCCAAGGGNACCTTGGGG
NAAATTGGTCCATTNGATTANTAGGAATGGGTGGGGGGTTTTTTTTCCCCCCCCTTTTTNA
GNAAANTGGTNTTNGGGATTATTTTAAAGNTGGANTTTTAAAAAACACCNTTTTTTTTTA
AACTCCCGGAAA

Sequence 2216

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTATACATTAAATATTTATTAA
TGTTTTGGGAATGTTGTGTATCAGTAATTATACCTAGTAAAAAGAAAGATCCACATCCAA
ATTTTCCAGAAAACCGGGTGGCCAGGTNNGGGNGGAAGAAGAGCATTTTAAAAACCAAAA
CCAAAACAAGGGAAAAGCTAAAAGGAGTTTNTTCAAATANTCCTGAATTCATTAGGAG
GGTTGGAATTNACATTTTTTCAGGNCTNTATTCCCCCAAAGTTGAAATTTTTTAAGGGG
ACCTTGANAAAGNCTTTATTACCCCCATNTGAAAAACAATGCCTGCCAATGGATTTACC
CTNTTTTACCGTTCTTCCAGGGTCCCAANTNACCGNTTGTCTGGTNAATCCCTTT
TGGGCCCTTTTTTTTTT

Sequence 2217

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGAGCTGTGTGCATGCT
GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGAT
GTATGCCAAGCGTGCTTTGTTCACTGGTACGGGAAGGATTCTGCTGCCAGGGTGATTCTGG
GGGTCCGCTGGTATGTGGAGACCACCTCCGAGGCCTTGTGTCATGGGGTAACATCCCCTG
TGGATCAAAGGAGAAGCCAGGAGTCTACACCAACGTCTGCAGATACACGAACTGGATCCA
AAAAACCATTCAGGCCAAGTGACCCTGACATGTGACATCTACCTCCCGACCTACCACCCC
ACTGGCTGGTTCCAGGAACGTCTCTACCTAGACCTTGCTCCCTCCTCTCCTGCCAG
CTCTGACCCTGATGCTTAATAAACGCAGCNACGTGGAGGGTCTGATTCTCCCTGGGT

Sequence 2218

CCGCGGTGGCGGCCGCCCGGGCAAGGTACTTTTTTTTTTTTTTTTTTTGGGATGGAGT
CTTGCTCTGTTGCCAGGCTGGAGTGCAGGGGCGCAATCTTGGCTCACTGCAACCTCTTC
CTTCCAGGTTACAGCCATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGTGCC
AGCCACCACGCCTGGCTAATTTTTGTATTTTATAGTAGAGACGGGATTTCACTGTGTTAG
CCAGGATGGTCTCAAACCTCCAGACCTCNTGATCCGNCCACCTTGGCCTCCAAAAGNGCTG
GGGATTACANGGCATGAGCCANTGGGCCCGGCCAAAAAANAANTTTTTTAAAAANGGC
NCCNNGCCCCCTTTTAAAAATTGGGGNGNCCCNNGGGGGNGGGGGAAAAATNAAAAA
TTTNTNNCCCCCCCC

Sequence 2219

GGCGGCCGAGGTGCGCCCACTGGGACTGAGATACGGCCCAAGTCTACGGGAGGCACGC
ATGTAAGGAATTTCCACAATGAGCGAAAGCTTGATGGAGCGACACAGCGTGACAGGATGA
AGTTCTTCGGAATGTAACCTGCTGTTATAAGGGGAAAAAAAAAAAAAAAAAAAAAN
GTACCTGCCCCG

Sequence 2220

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTT

TABLE 1
370/467

TTNTNNTTNTNTTTTTTTTTTTTTCCCGGCCATATTCCATTNTTNNANAACCTGAATTG
CNCTGCCATCCACAAAGGCTNGCNCGGTTTTATCCACATTTAAATCAAACCTGTNGGAGCN
CCAGGACTATTTTATTATTGCTTTTGTNGGGAACAACCTGATCTAACTGCATAAATCTTTT
TCCTTGACATTACATGAGTNTTGGNGTTTCANCCCTTTTGTCTTTAAGNGGAANAGGC
NAATTTGNGGAAAAANANGGGGGANCCCTTTTNCCTTTTACCCCAAAANTCCNAANGGNA
AAANCCTTNTTTTTTTTTTAAANTTTTTTCCCCNNNTNCCCAAAAAANNGNTTTTTT
TTTTTTTTTTTTTNTTGTGNGGGGGGNGGGGNGGGGNANAAAAANANNCNNNTTTTTTN
NNNNNTNTTTTTTTTTTANAAAAAANNNNNNNNNNNNNNNNNNGGGNGNNNTT
TTTNNNNNANAAAAATNNATNNNNNTTTTTTTTTTTTTTTTTT

Sequence 2221

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTAATCTTTGT
TTTGGCACACTTTTCTGACAAACAGCCAGTGTTCTCAACACATAAATACTAGTCCACGT
TAACAACAATAGCATATGAGACCGCTCTCCGTAAAGATGCCAGATTGGATGCAAATGGAC
TGAAATACCTTGGAGGGTTTCAAAAAATAAGACAAAGGGCAAAGGAACCTTGCCAAAG
GAGATGGAGAGCAATTCTTTAAAGTTAGTGGGAGGGAGGAAGCAAAGAGCTCATAAATAC
AAGCCTNTTAAATGGGACGCATTTGCCTCGCGCCTACTGGGGTGTCTGCAGCTCAGCTT
GGTGCCCCACACAGGACACCG

Sequence 2222

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGAAGTCTCTACTGAGGAAAGC
TATGAGGATACTCTGTTCTGAAGCTCCCGGTGAATTTGTTCCACAGACTCGGAAGAAAG
GTTGGATAAGAGTTCACTGGAGATTGACAAGTACCTGGAGGAGCCCCTACCCAAGTGCG
CATCTTAACGGCATTGGTGGAAAGCTGGGGTCAGAAAAGAGAAATGACCATTGGAGGGGC
GGGGCCTCCTAGAAGAACCTTCTTAGACAATGGGGGGAGGATGGGACTTTGTTTTTCCA
AGAATAAACTTCAACTCCTGT

Sequence 2223

CGAGGTAATTTCCACCACAGTGTTGAAAGGGAGAGCAAAGTCTTATGGATAAACCCCTCCT
TTCTTTTGGGGACACATGGCTCTCACTTGAGAAGCTCACCTGTGCTGAATGTCCACATGG
TCACTAAACATGTTATCCTTAAACCCCGATGCCTGAGTTGAAAGGGCTCTCTCTTATTA
GGTTTTCATGGGAACATGAGGCAGCAAATCTATTGCTAAGACTTTACCAGGCTCAAATCA
TCTGAGGCTGATAGATATTTGACTTGGTAAGACTTAAGTAAGGCTCTGGCTCCAGGGGC
ATAAGCAACATTTCTTGAATGTGCCATCTGAGAAGGGAGACCCAGGTTATGAAGTTTTCT
CTTTGAACACATTTGGTCTTTTCTCAAAGTTCCTGCCCTTGCTAGACTGTTAGCTCTTTGAG
GACAGGGACTATGTCTTATCAATCACTATTATTTTCTGTTACCTAGCATGGGACAAGTA
CCACCTGCTGGGGATCACTCTCTAGGATCACCCCTCCATCCACAATTTATCCACAAGCC
AAGAACAAGCCCCTTCATGTTCTCCAGCAGTGCTCGCTTTTCTAC

Sequence 2224

TCACTNTAGGGCGAATTGGAGCTCCCCGNGGTGGCGGCCGCCGGGCAGGNACTTTNTT
TTTTTTTTTTTTTNCCTTTTTTTTTTTTTTTTTTTTGGCCTTTTTTAATATCTTTA
TTTGACAAAATAAAAGTCAGCAACCTATCTCGATTTCCAATTTTTTGTGGTGTGAAAT
TCCAATTGANACCCTAAAGCATAGCTCTGGCCTTGGAGAGATTTCAGGAGAGTCANAGCC
CANAAGGGAGCAGGATCCAGGAGGCCCTCATNTCCAGCACTCCAGCTGAGCCAGCCGGG
TTATGGAACATCACTGAGCAATTAATAATTTATCAACAGACAAAAAAGTTTATTGAATA
CAAACCTCAAAGGCATCAACAGTCCTGGGCCCAAGAGATCCATGGCAGGA

Sequence 2225

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGGCTCTTTCAGGTCCCCCT
TCCTCTGCAGACTCAGCCTCCAGGCTGTTAGCTCTCCAGATAGCTGCCCTGCCACGC
AGGCCAGGAGTCTTCACTCAGGCACCAGGCCTGGTCCAGGAGGAGCTGTGGCACAGTC
GTGGTTCAAGTGTCCACATGCACCTGTTAGTCCCTGAGAGGTGGTGGGAATGGCTGCTTC
ATTCTCGAGGATGCCCGGGGCCACCTGGGCTTGTCTTTCTGTTTAGAGGGAAGTGTA
CATATCTGCCATGAGGAACATAAATCATGTAAGGCCATTTCTCTTAAACAAAAACAAA
CTTTCTAAGTACAATTTGTTACAAATAACGCAGACTTCAAAAAACAAAAAATNACAACCC

TABLE 1

371/467

AAACAAACCAAAATTTAAATGATCAGAATTGGCAAGCACAAAGAAAACGCCCTNTCCTGA
CTTNTATTGTGGGCAGTTCTGAACGCCCCAGAAAATTTGTGCCAAAGAGTTTTAGAAAA
NTAAATATTCCAATAAAAGTAAACACTATACNCCACCAAAACAGGC

Sequence 2226

GGCGAATTNGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTT
TTTTTTTCTAACTTTATATATAATACTTTATTTTATACAATTCAGTATATCATGTAAAC
ATATTTCACTTTTAATTTTATGATATGTGTGACATATTTTAATTTTATGGATTCAATTA
TACTATCATAATTTTTTAAAGTTTGTATCTTTCATTAATAAGGAGGTTCCCTTATTAATG
GATTTTTTTTCTGTAGCTTNTGAGAACACATTTTATAGATNCCCGGCTTNTAGTTATACC
TGAAGCTCCACAGTGTANACATGTTTTGGCCAACCTTGTTTTATCGGNGTATGAAATTTG
NGCTAATAGGAGGGATCCAATTGTCATTACATTAGAAAACCTAAATGGGAAA

Sequence 2227

CCGGGCAGGTACGCGGGGCCCTTCTAGAGGCAGGCAGAGGGAAGAGAAAAGGGTCTGTTGT
TTTTCTCTCCTGTTTCTCGCTCCCTCTCTGCTGATCACAAAGCTGCTGACCGGGTCAGAA
AGTCCTGATGGAAATCCACCAGCGCTGGGCAGGCCCTCCTCCTCCAGGGAGCTTGTCCCT
TGCCTAATTTTTCTTCGTCTGATGAGAACAAAAAGAGAGAGAGAAGAAAAGAAAAACC
ACAAACTTCCTTTGAAAACCAGCTTGTAGTCAGGGCCCCGGAGCGCATGCCATAGACTCGG
CGACTCAGGAATCCTGAAGACTCTCTGAGCGACCTGGAGCACCTTGGGCTGTGTCCCTGC
CTGCCTTCACTCTCCTCCAGTGCCCCCAGTACTAAGGAATCTTTCTGTTTTGGGGTT

Sequence 2228

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGACACAAGACATCATCTTGAAGGAAGG
ATGGCTTTGGCCAGACCAAGACCAAGACTTGGAGACCTGATTGAGATTTCTCGCTTTGGC
TATGCACACTGGGCCATCTACGTGGGAGATGGCTATGTGGTCCATCTGGCTCCGGCAAGT
GAAATTGCTGGAGCTGGTGGGCCAGTGTCTGTCTGCCCTGACCAACAAAGCCATAGTG
AAGAAGGAAGTGTGTCTGTGGTGGCTGGGGGAGACAACCTACAGGGTCAATAACAAGCAC
GATGACAGATACACACCACTGCCTTCCAACAAAATCGTCAAGCGGGCAGAGGAGTTGGTG
GGGCAGGGAGTTGCCTTATTC

Sequence 2229

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTACTANAAGATATT
GATCCTAGTCAATTAGGCATTGTAGACTGTNATGACCACTTAATAAAAAATTNTGGACCT
GANGCTCAGGAGCATCCAG

Sequence 2230

NTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGNGGTACCTGCAGNNCTNNTACACCT
ACCTCTCTNTGGCTTNTATTTGACCGNGATGATGTGGCTCTGGAAGGCGTGAGCCACT
TTTTCCGCGAATTGNNCGAGGAGAAGCCGCAGAGGGCTACGAGCAGTNTCCTGAAGATGC
AAAACCAGCAGTGGC

Sequence 2231

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGTTTCAGAGTTTC
ATAAGACACAGTCTCAACAGGAGTTTTTTAATAAATGCTCTATCTCTAGTTCAGAAAC
TGAATTCGAAGAAGCTACACTGAGGATAATTGAGCTCTGATATTGTGATTACTGTGATGT
TCTTTCATTACATACAGTAAGTATCTGCCAATACGTAACCTACCGAGATCTATTGCTTCCT
ACATAATTAGACAAGCTCCTTACACATATGGGCCCATGCCCGGCACATAGCAGGCACCTTA
ACAAGGGGTTGCTTAACCTACNGGAAGGAATAATATAATTNGCCTTTCCNTTTTTAACTGN
TTTACCCTTTTTCTATACNTTGNATATTTTTGGAACNACATGCTTGCAAAACTAAAAA
TCTAACATGCATTACTAATTTATAAAAGATCCTTCAGTATTTTTCAAAAAGGGAAAAAA
TNATTAAAACCAATCCCCCAAT

Sequence 2232

TACTTAGGGCGAATTGGAGCTCACC GCGGTGGCGGCCGCAGAGCTTAAGAGACCCTTCAG
CTTCTCGGTGTAGGTCACCAAGTCATGTCACGCTCACAACCTTTGCGCTCCCTCTAGGTC
AGGCACCGCATCCAAGTTAAGCAACCGACGCCGGCTCCTTGGTGTCCCAACAAGGTCTAG
TAGAAAAGCAACTTTATAATTGTTTCACAGATTTGATTAAAGAGCCAACCTGAGTAGTGGG

TABLE 1
372/467

CCTTGTGCTAGGGCTCCGAGGGCCCAAGGACCCCATGGAACCAGATTTAGTCGCTGACCT
CTAGGAGCTCACAGGTGAGTGACTCCCCCGCGTACCTCGGCCGCTCTAGAAGTGGTGG
GATCCCCCGGGGCTGCAGGAATTCCGATATCAAGCTTATCGAATACCCGTCGACCTTCGA
GGGGGGGGCCCCGGTACCCAAGCTTTT

Sequence 2233

CCGGGCAGGTACCGNTGTGTCCGGGTGGGTGGTCAGAATGCCGNGCTCCAGGTGTTTACA
GCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCC
TGTGCCAACTGNGTTTCCCAAGCTATGTGAGTTCANATAACCTCANAGTGAGCTCGCTG
GAGGGGCAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAAGTG
ACT

Sequence 2234

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATTGGCACGTCA
CGATGTCTTGAGTTTCATTCACTAGGTGGCAGCCTGCATCGTTCCACTGCAAATGACTGA
AATCCCAAAACACACAATGAGGCTGGCTCAGGTTTGACTCTATCTTGAAAAAATAGGA
AAACTTCATTTATGGAATAGTTTGAATAACCGTGGATATCACAGGTCCATTGACCTGAG
CATTTCCATTTTTGGAAACGGGTAG

Sequence 2235

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGTCATCACACGTGACAGGATGTCA
ATGACAATCCTCCAGAGTTTACTGCCATGACGTTTTATGGTGAAGTTCCTGAGAACAGGG
TAGACATCATAGTAGCTAATCTAACTGCGACCGATAAGGATCAACCCATACACCAGCCT
GGAACGCAGTGACCT

Sequence 2236

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATATGAACCT
GTGCTTTGCAGCAGGCCAACTTGTAAGCTGTTCTCAACCCACTTTGTCAGGTTGATTAT
CGAGCAAACTTTGGGCCTGTAATTTTCTGTTTTCAAAGAAATCAGTTTCTCCAGCTTA
TGGAGGCATATCTGAGGTGAATCAACCTGCCGAATTGATGCCCCAGTTTTCTACAATTGA
GTACGCGGNGACAGCGGNTTCCTTGATCCTTGCCACCCGCG

Sequence 2237

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCGGGTACNCNGGGCCCTGTGCTG
TCTGCACCGAGGAGAGCGGCCTGNCGGAAGNGGGCCACCATATCTGGAACTACAGTCTA
TGNTTNGAAGCGCANAAGGGAATAAACANTTAANGACTCCCCNNGGACCTGNAGGATGG
NCTTTTCCATGGGGGCCGAGCNGCAGCTTACAATGNAAAATNACANACTGGNGCTNTTG
GAGAAAATATANTTGGCATAATCCCATTAACACNATGACTTCAAAATTTTAA

Sequence 2238

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCCTGA
AATGGCTTCTGCAGAGATGGACCTATGCCGGGGACAGCACACCTGGACTCAAAAGGCAGG
GATTGGATAGGAAGAGGAATAAAATATAAAATCAGAGAAGTCTGAAATTCTGTGACCC
CTTTTGTAGTAAAAAANGAAATAAAAGTACCT

Sequence 2239

GGTACATTTTTAAAGAGGTTGTTTTTGGCCGGGCGCAGTGGCTCATGCCTGTAATCCCA
GCACTTTGGGAGGCCGAGGTGGGCGGATCACGAGGTCTGGAGTTTGAGACCATCCTGGCT
AACACAGTGAAATCCCGTCTCTACTAAAAATACAAAAAATTAGCCAGGCGTGGTGGCTGG
CACCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCTGGAAGGA
AGAGGTTGCAGTGAGCCAAGATTGCGCCCCTGCACTCCAGCCTGGGCAACAGAGCAAGAC
TCCATCCCAAAAAAANTTNAAAAAANNNGGTACCTTGCCCGGGGCGGCCGCTC
TANAACTAAGGNGGGGATCCCCCGGGCTTGNAAGGAATTCNATATTCAAAGCTTTA
TTCGAATNCCGTTTCGACCTTCGAGGGGGGGGGG

Sequence 2240

CGGTGGCGGCCGCCCGGGCAGGTACNTGGGGAAGGCGCNCNCGTGCCTCAGCTTGACAGCA
GAAGCAGGAGGAGAGCTGGCGGGAAGACATGCACCCCTTGAAGACCCAGAGAGAGGCCGT
CTGTCTACCGCGTAGCAGTTACATCAGACTGAGACACTTCTGTTTACAGGAGACTATAA

TABLE 1
373/467

AATTCCTGCCCCGTGCTCATTGTTGGGGCTGACGCCATTTTAGACCTCAGCCCATCTGCACC
CAGGCGCTCACTGAAACAGTGTGTTGCTCCACACCGCCTTGTGTTGCTTGNTGGCGCGCT
CTCAGGGTCCGACCAATCCAAGAGCCTTGCAGAAAGCATTAACTGCTTTTNTCTTTGG
CAAGAGTTTTTCTTTGCTCTGATCTTGGAGACCATCCCTCTGCCTAGGGGGAAAAACATAN
GGGAATACAGA

Sequence 2241

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACACCATGTTAAGA
GATAGCAATGCAACCGCAGCCAAGATGTCTTTAGATGTAATGATTGAACTCTACAGAAGG
AACATCTGGAATGATGCAAAAACTGTCAATGTTATCACAACCTGCATGTTTCTCTAAGGTC
ACCAAGATATTAGTTGCCGCTTTGACATTCCTTCTTGGGAAAGATGAAGATGAAAAACAG
GACAGTGACTCCGAATCTGAGGATGATGGACCAACAGCAAGAGACCTGCTAGTACCCTCT
CTTCCAGCACCCAGGCCAGTATTGAGATCGATTCTCTCTATGAAGGAATCGACTTCTATA
CCTCCATTACCCGTGCCCGATTGAAGAACTGAATGCTGACCTGTTTCCGTGGCACCCCTG
GACCCAGTAGA

Sequence 2242

TAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAGTGGCGTGGGCC
TGCTTTCCCGCCAGTGCCCACTCAAAGTTTCTTACGGCATAGCCGATGAGGAGCATGAT
CAGGAAGGCCGGGTGATTGTGGCTGAATTTGACTCGTTTGTGCTGGTAACAGCATATGTA
CCCTTGTCCTCTTCTCAGTGACTTAAACAATTCCAGGATCAGAAGAGAAGCCAACGTG
ACATCCTCGATAAACTGGGGATAAGCTGAAGTTCTGTCTGTTACCGAAGTGGTTGAAA
AACAATTTGAGATCCAGAAGTCCCTTGATGGGTTCAACATCAGGTGTTCAAAAAA

Sequence 2243

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGNCAGGTACCTTCACCTG
CTTTGGAGAAATCCTGAATGTGTCCCAGAAATGAGACGAGAAGTCTTCTCCTGATCAAA
GGTCTTTTCTTGATTGAAGGGTTCGTGGTTTCACAGGCTTCAAGGAAAGAACCATGGAC
CTCAGTGGTGAGTGTTACAGNTCCATTAGAGAAACATGCAGACCCCCCGCGTACCTN

Sequence 2244

GCCGCCGGGCAGGTACTTTCCCTTCCCTAGAAAAGCNGACTNGNCGCTAACGGTGAAGG
ACCANGCAGGCGTCCCTGAGTGGTCTGACACCTTTGAAACGTGAGTGAATAATCAGAGA
GGTGTCCTGNAATGATAAACACCAAGGAAAGGCTGCCTTCCAGTCTGNGACCAAGCGC
CAGAGTTTTGGGTCCACGGATAAAACGTGCTCGTTTGTCTCTACCAGAAAATGAANGGA
ATTTGAAATTAAGAGAAGGGAGAGATTAAGAAAAAGAAAAAGTACCTCG
GCCG

Sequence 2245

AGGTACGCTTCGACCCACGCGTCCGAGAAAAGACTATTAATTATTTGTGCCTTTAAAGGT
TAATTATTTCAACCTTAAAGAAATCTTATAAGAACCATTATAAAAAAGAAATGCAAATA
TATTGCCAAAAAAATACACAAATTATTGTCTTTATATAGGGGAGGAAATAAATATGTT
TCATCTGAATTGTCTGAAGTAAGTCATGAATGGAGTCAGGGTAAAAAAAAAAAAAAAAAA
AGTGCGGCCACCTGCCCG

Sequence 2246

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGCGAATACTGCATACTGTTTAAGGTAGTA
TATAAGTTTATGAGAGAAGTGGAGAGCTTTCTTCTTGAAGTCCGGTATTTGTTGAGAT
ACCATTTGCCCTCACAGAGAGGTGTTCCCACTCCCATCCCATGCCAGATAATAAATAT
TTTGAGAAAAGTGACCTAAAACAGCTGAAATCTTAGGTGCATCTGTCTGCAGACCTCCTT
AAGCAGGCTGTATCTTACAATTCCCTTACTGCACTGGGTAAGTGTTAACTTAGTTTTTGT
TGTTTGCTCTTTGCTTTAAATATTCTCCAAATTACACCT

Sequence 2247

AGGTGTACAAGCTTCNACCCACGCGTCCGAAAGATTCTTGNTGAGCATGGTGGCTCATG
TCTGTCACTCANCAATTTGGGAGGCAAGGGCAGGAGGATAGTTTGAGCCCATGAGTTTG
AGACCAGCCTGGACAACATAGTGAGACCCCATCTCAGCAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAGTGCGGCCGGCCGCACTTTTTTTTTTTTTTTTTTGTCAATANAAGTNTGG

374/467

AGGTACATGTGCCANNTTTGTTATATCTTTANCTATATNCNNNNCTACTTGCCCCCTGATC

TABLE 1
375/467

ATCTATGNGTAGACAATAATTAGTAAGGTCAAATTTTTACAAACTCCTCCTTCAGCTGC
TAGCAAGTAATCAAGAGCTAGTCTATTTTGATAGATAGCATTCTCATCAGAGTCTCTTG
CCAGGCAAGAACAGTCAAGGCTTGAGTGGTNTNNTTANTGNCTGCATTCTAAACTGCTT
GGCNCATATGACANNGCCGANCATGTAGATGGGGGTTGATATCCCCATGAGACATCTT
GTGCCCAAGTGGCAGGTCCATAGTATTGTAAGATTTTTTCAGGGGGCCATTTCATCGTCTT
TCCAATCACCTATGGCTATGCTTCATTTTTTCACAGGAAGCACAGACTGGGAAGCCCAGAA
GTTTACCTGTTTTATGGNCCCCTAAAAAANANGGTTTCNATGGGTGCCAAATTTAC
ACAGNTTACCTGGCCCACTTGATTNAGGGAANNTTTTNANNCATTAAGNNCCGAANCCCN
NNGGGNATCAAAAAGNTTGGCCCTGGCCCGGNNNGGGCCCGGCCCNCC

Sequence 2255

ACCTGCCCCGGTGGCCGCTCGAGGCCGCCCGGGCAGGTTTTATTTAACATTCAAACCTTCA
TTAAGACATGTGCAATATGGCAATTTTACTGGGGATTAAACCCCTACCTAGGATTGCTTGC
TGGGGCTTAGCAACAGGGTCCAGTTCACACTTAGCACTAATTAATACTTTATTGAATAA
ATACAATACCAAAACAAAATGCATTCAAATGCCGACGCGTGGGTGCACTCAAGCTAGGTG
GGACGCGTACCT

Sequence 2256

ACTTTTTTTTTTTTTTTTTTTTTTAAAAATTCAAAAATTAGTTTATTAGCTTAATATAA
TTAGGTCAATGGAATCCTGTTTGATCTCAATACTTCCCATATTGCAATATATAAATGTG
ACAAATTAGCTGTTTTGCGGCATAGATAAGTGTCTAAGCTGGGCAGTTAGTCTACCCGT
TTATAGTTCATGTTCTTCATGGCTTTCAGCATTTGTCACTTTCTATGATGTGTTCAAAG
ACCAGAAAAGGCCACACTTGACCTGTCAGCTGGTCCTTGAACAGCTGTAGGTTTTTTTTT
TTTTGAGACAGAGTCTCCCTNTGTTGNCCAGGCTGGAGTGCANTANCGCAACCTCGACTN
ACTGNAACCTCTGCCTCCAGGTTCAAGNGATTCTNCTCCTCANACTCCTGAGTAGCTGGG
ATTACAGGCCCATGCCACCATGCCCGGCTGATTTTTATTTTTAGTAGAGATGGGGNTT
CACCATGTTGGCCAGGCTGGTNTTGAACCCCTCGGCCGNTTCTANAACTAGTGGGATC
CCCCGGGCTTGCAAGGGAAATTTCCNATTNTTCAAAAGCNTTAATCGGATACCCCGTCC
AACCNNTNANGGGGGGGGGGGCCCCGGGANCCCCCAGCTTTTTGGTT

Sequence 2257

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGACCTCAGATTAATAATAT
TGCTGAGGTGAGACGCCACAATTTTCATGACTTCTTCAGAAGTAGCACATTTTCGTGAC
TTCCGCTGTCCTCTGAAAAACAAAGTTATTTGGAACATGTTTCATGCAAAAGTGATTCTGA
CCAAGTCTAAATCGAGCTTTTCTACTGACATGAACTGNTGGAAAAGTATCTTATTTTA
TAAGAAAGTGTTTTCCCTNAGGGGGGGNNGTGTGNTTTCNGAACANCCCNCTNATTATT
TTTTCCCCCGGNNCCNTATAAAATATTGGGGTCCCCCCCCNNCGGGGGGGNNGGGGNAT
TTTAAAAATTNTTTTTNTCCCCCCCCCNCTGGGGGG

Sequence 2258

GGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTGTACAAAGCTTCGACCCACGCGTCC
GAGCAGAACTTGGCAGCAACAGAGGAAGGGCCCTGGAGCCGGCTGTCGTGGATGCCTTT
AATCAAGCCTGGCATTGTTGCTCACGAATGTCCCAACTACTTCGCTAGGCCCATCAT
GGCTCAGGCTGCCCAAGGCTTTTCTGTACCTNTTTTGTCTCTCACACTGACCAAGTCT
TACCTGCCCG

Sequence 2259

CGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTCTTCGACCCACGCGTCCGTA
GTAATAGGAATTAAGTACCCCTTTNGGATGGGGGAGAGCATCAGGCTGGGGTCAGGTAA
GTGTAATGGCCTTCTGAGCATGCTCTTAGGCTGACTCC

Sequence 2260

CCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATTAGTTATCAATTCATGGGCTATGGCCA
CTGGTTTGCTGGATGGTCAGGGAAGTGGAAAGGAACATGACTGGAAAATTGGTGACAAAAC
GGTCTGTGGAAGAGGTATATACACAGATCTTTCTGAATGGGTGAAAAATGTGAGGATATT
TGTGTCTCATATGAATGCCCCAAAGAATGACTTCAGCAGAAGAGGATTTTAATAACCAA
GTAGATAGGATGACCTGTTAGCCCCCTTCTCCAACCATGCAGGTAAGTACCAATGAGC

376/467

Sequence 2261

TGCGCAATTGGA CTCCCCGCTGTGGCGGGGNGNCGGNCGNCNGAGTAAGACTTCGTCTCA
 AAAAAAACAAAA CAAAAACAAAAACAAAGAAGTTAGCCTGGTTGGGCATGGTGGCTCAT
 ATCTGTAATCCTAGCACTTTGGGAGGCCCACTGGGGATCATTTGAGGCCAAGAAATTTTG
 AGACCGAAGCCTGGGCAACGTTAGTTGAACCCTCATCTNTTACCCAAAAAAAAAAAAAAAA
 AAAAAAAAAAGTTGCCGNGCCCGCTTCTTANTAACTAAGTTGGATTCCCCCGGGGCCT
 GGCAGGGGAAAAATTTGAATATTCAAAGGCTTTATTCTGAATACCCCGTTTCNGACCCTTC
 GNAGGGGGGGGGG

Sequence 2262

AGGTGGACTTGATTGATTAACCAACCAACCCAGGCTGTCATGCTAAAAAAGGGCAGAAT
CTTTGCTGCTGAAGTACTNGCATAGGGTTGACTACCATTGNTCCTTTAGTNTTAGTTTGG
GCTAGCAAAAAGGTGNGTCCTTTGCCATGTAAATAAAAGCCNTNTCNNGGTAATNAAAAA
GGTNTNTNTTTTTAACTT

Sequence 2263

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCCCAAAGTGCTGGAATCACAGGAAT
GAGCCACCACCCAGCCAAATTGGGCACAAATTTAAAATTTGACTTTTATTAATGATAT
GGTAAAGAGATCTAGCTTGGTCATGACACCCTTGTTATACGGTGACAGGCCAAATCATT
TAAAAATATCTAAACTATAATTTNCTGTAGTTCAGATGAATTGGATATTCTTGAAGCGGA
CGCGTG

Sequence 2264

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTTTTTGGGGGGAGAGACACAG
ATTTTACACTAATATATGGACCTAGCTTGAGGCAATTTTAATCCCCTGCACTAGGCAGG
TAATAATAAGGTTGAGTTTTCAAAAAAAAAAAAAAAAAAAAAAGTGCGGCCACCTGCC
CGGGCGGCCGCGCCGGCGGCGAGGTNTCGGGCCCCGAGAAGACCTCCTTTTTT

Sequence 2265

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGCGTCCGAGCTAACGAATGCTNGACT
AACTAGATNCCAAAGCTTGCTCTGTGAAAATTCCCGNATAACCNNTGAAGTGGGCGACAC
CNTAACCCCTGCACACCTTACTCCTGGTNTCAGAGAGCCAGTNTGAACATAAACTGNGTA
GAGGTGTTAGACTCANCCTACCCTAGTAANGCCCAACCTCCGAGACCAACCTTAAACATC
AGTAGACTCGAGCTGTATGTGGATAGGAGCAGTTTNGNCAACCCCTGCNAAGTGACTCT
GAAAAAGAC

Sequence 2266

CCGGGCAGGTCTTGAGTCGACCCACGCGTCCGCCTAGCAAAGCTGTTTCCACTGAATGCA
TCTAAGCANNATGGANCTATGCCAAAACCACCACAGGNGTTTCACTTNAATGATACCNC
GAAACAAGG

Sequence 2267

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATATGCTACAGGGAAGA
AAACGTTCCAAAAACAAGAAAAAGTTGAAAAAGGCAATGAAAGTGCTCAAGAAACAGAAA
AAAAAAAAAAAAAAAAAAGTGCGGCCGCGCCGCACTTTTTTTTTTTTTTTTTTTTCAATN
TTATTTATCAAATAAATTTATTTAAAAAGTTTTCAAAGACCNCTTTAAAGTGTANCTGCCT
TNAANACAGATTTTTGGNACTNTAAACGGACACTGCAGTTTTNAACNCCATAGCACTCAT
TNTATTTACACATCATTTTTTAAC

Sequence 2268

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAGGTATGTAATCCAGG
AAGTGACCAGCCTGATGCGTGTTATGACTCACTGNAAGCCTCCCATGATTAAGGAC

Sequence 2269

[illegible]

TABLE 1
377/467

TTTTATACTTTGGTTTAAACAGGGGAGAGGGGGAGTNTAGTTGAAACAATNTTACAGAAG
TAAAGTAGGCAAAAAGTTAAAAGGATAAACGGTTACAGGAAAGTAAACAGTTCAGGNGC
AGAGGCTTTAAGTNTATCCTAAGGNGATGGACCCCGGGCTTTGGGC

Sequence 2270

AATTGGAGCTCCCCGCGGTGGCGGNGCAGAGTCAAGCTTCGACCCACGCGTCCGGTTTGT
TTTTCTTACGGCAACTCAAAGCAAAGAGCTGGAGGAGCCAGNCATTATAATTGCTTACT
CTCATCGCTTAGCGCCCCAGGTGGGATGTGTTTCCAAAACACATTTTGTNTTTATAAGG
AAATGTAGTTAGGATTAATTTTATTGTCCTAATTAGAAGTCAATTTTGGTTAAATCCTC
AATTTCAATAAAAAAAAAAAAAAAAAAANGGN

Sequence 2271

CNCTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCTTGAGTC
GACCCACGCGTCCGGTGATATGTCACAATGCCGTGTAGCCAGAGCCTAGACAAAAGTTAC
AGCACCTGGGAGATCAGTGCAGAGATATGTCACAATGTCCCCAGTAGGCAGAGACCAGGC
AACAGTTGGATCACCTCGGGATCAGTGCAGAGACATGTCTCAATCCCCCTGTGGGCACAG
CCTAGACAAGAGTTAAATCACCTCGGTTAACAGTGCAGAGATATGTCAATATTCCCCTGT
AGGCCGAGCCTACACAAGTGTTACATCACTAAGGTGATCAACGCATAGATATGTCAAAT
ATTGCCGTGAAAGCAGAGTCTAGACAAGAGTTACATCACCTGGGCGATCAGTGCAGAGGT
ATGTGACAAGGCCCTTTAAGCAGAGCCTAGACAATAGTTACATCACCTGAGTGATCAGT
GCAGAGGTCTGTCACAATGCCCTTTAGGCAAGAGCTTAAACACCTCGGC

Sequence 2272

AGGTACTTGACCCACAGCCATCTGGGATGAGCCGCTTTTCAGCCACCATGTCTTCAAAT
TCATCAGCATNGAACNNGGTGAAGCCCCACTTNTTTGAGATGNTGGATCTTCTGGCCGGC
CAAGGAACTTGAAGTTGGCCCTGCNGCAGGGCCTCAATCACATTGCTCCTTTGTTTCTT
GCAAGCTTTTGGGTTGCCGGGATTGGGGACATNGATAAACTTGGGCCAAATTGTGAAACC
CTGGGCCACAAGTGCCCTGGGGGNGCCTTTCCAAAAGGGGCCACCCTCCGCCATGCNCTG
TTNTGGGAAGNCCTTGTTCAAGCCCCCAANCNACAGGGGAACCAAAACCAATTCTNTNGT
TTGGAATGGCCGGGAATTGAACCGTGGNAAAGGGGGGTTGGGGAAGCCCCGCCACCCCC
NGGNATAATGGGGAAAGCCAATCTTTTGCCAACAACTTTTTTAACCAATGTTACCCTT
GCCCGGGGCCGGGTCCGCTTCTAAGAAACCTAGGTGGGGGATCCCCCGGGGGCCTGGC
GAGGGGAAATTTTGAATTATTCNAAAGCTTTAATTCTGAATACCCGTCCGGACCCTANG
AGGGGG

Sequence 2273

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTAGCTTGAGTCGACCCACGC
GTCCGAAA
AAAAAAAAAAAAAAAAAAGGGGNGGCCGCCGCCGGCGGGTCCCNTCANANANAAGG
GGGNGGGNGCTAATCCAGTACCAAACNTTC

Sequence 2274

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCATTTCTACTGT
AGAGGAAAATATATGACAATTATCACTGTCAGTGCCTGACATACAAAATGGAACAGAAC
AGTGGGGTAATGAAGGGAGGGGAGGGAAAGGGAAGAGCAGGAGAGAGAGGAGTTGGAGGA
GAGGGGAAACAAAGGGGAAAAGGGTCTATTAACAGAGGCCTAGAGAAGCTAAAATTTGGA
AATGGCAAATCTGAGAAGAGCCTGAATAAAAAGTGGGGGTGAGGCCATGCACAGTGGCTC
ACGCCTATAATCTCAGCACTTTGGGAGGCCGAGGCAGGTGGATCACCTGAGATCAGGAGT
TCGAGACCAGCCTGGCCAACATGGCAAACACCT

Sequence 2275

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCG
TCCGAAAAATGGGAGACAATTTACATGGACTTTGGAAAAATTTTTTCTTTGCATTCT
ATCTCTCAAAGTTAGTTTTATCTTTGACCAACCGAACATGACCAAAAACCAAAAGTGCA
TTCAACCTTACCAAAAAAAAAAAAAAAAAAAGACCTGCCCCG

Sequence 2276

CCGCGGTGGCGGCCGCCGCCGGGCAGGTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGACTAG

TABLE 1

378/467

AGGGATGAACCACCATGCCAGGTAATTTTTTAATTTTTAGTAAAGGTCGGGTCTCACTA
TCTTCCCTGCTCAGCTGGTCTGGAACCTCTGGGTTCAAGTGATCTTCCACCTCAGCCT
CCCAAAGTGCTGGGATTAAGAAGTAACTACCACACTCAGCCACACATAGGTAATTTAA
AATATTTCCATAGTCACAATTAACACATATAAATAGGTAAAATTAATAACATTTTAT
TTAACCCAATATATTAATAATTTTCCACTTTAAAAAGAGACCTCGGCCGCTCTAGAACTA
GTGGGATCCCCCGGGCTGCAGGGAATTCGATATCAAAGCT

Sequence 2277

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTATTGACCCACGCGTCCGTAG
TTTTTATCTTTGACCAACCGAACATGACCAAAAACCAAAAGTGCATTCAACCTTACCAAA
AAAAAAAAAAAAAAAAAANGT

Sequence 2278

GNACCCAGTAATCACATAAAGGTNTGCAGGTCATGNTGTTTATTTAGCTTAAGTGT
TTTTTATTTGTTGAAGGGGTNGGTGTTATTTTCAGNCTTTTTCTTATTGGGTTGACCAGA
CTTGGTAAATCTGTAAGAAAGTTCCATAAATTATTGGGGGGAAGGNATTTCTCTGAA
ATTGGGCTAAATTCCTTGTAAGCTGAAAAAANAACAAAAACAATAAAATANGGN
GGCCGGGCGCGCTTCTAAGAAACTAGGNGGGGGATCCCCGGGGGCCTGCAGGGGAATT
CCGNATATCAAAGCCTTATCGGATTACCCGNCGNACCTCGGAAGGGGGGGGGGGGGCCCC
GGGTACCCCAAGCTTTTTGGTTTTCCCTTTAAGTGGAAGGGGGTTAAATTTGCCGCCGT
TGGGGCCGTAAATCAATGGGTGATAAGGCTGGTNTTCCCTGGTGGNNGAAAAATTTGGT
TAATCCCGCTTCAACAAATTTCCACCAACCAANTACCGAAGCCCGGGGAAGCCATAA
AAAGGTGGTNAAAAGCCCTGGG

Sequence 2279

NGGNGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAAA
ACAAAAAACCACCTTCACTAATTCATCTGACAATGCTGTTTATTCATGACGCCAT
TTTTTGTGTTGTTGTTGTTGTTTCTAATAATAAGAAGGAGACTTAGGGCTGTTG
GGCTGATATATGTTTGGGGTCCACCTCCCCGCCTCATCCGTACCTCGGCCGACCAGTG
CAAATATCTACCCAGTTAGAAGAGTAAATACCATCTTAGTGTTATTATCAAAATATTNTG
AACTCATGAACCTCCTCAGACTGTTGCTGGGGACTCCCAGATATCAATACTCTGAGAACC
ACTGATCTAATGTTTCTTTAGTCAGTTTCTATTGTTCTCTAGTATAACCAAGCATAAAA
GTAAT

Sequence 2280

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCTCAG
GGCACAAGTGATCATTTGGGATCCTAAGTTAAAAAGGAAATGCAAGAGTAGGATACTCC
AATCCAGAGTCTTTGCAGGAGGCTAATCCACAAGAAGGGTAGCATCAGAGAAAGTGGC
ATTGGTCTTAGTGGTGGATCATCAGGTAGACAAGTGATAGTGTGTGAACCCATCTGAAA
TTCATTTTACCGTCACCACTCTTACAAAGGACAGTTTATTCCCAAGGACAGTGCTGACGG
GGAGGGGGACAGGCAGGGAGTTAGGAGGGTTTTTCGAGGATTTCAAACAGGTGGAACCCAT
CCATCCCTATTCCCAAGGGCCACTTACAACCTAAGGGGTGGTTACAGGATTAACCTACCA
GTTCATTTTCAAATGCTGCTTTGAACCTCAGAGGGTTGATACTTTTAATTTGTAATTTT
TGTAACCTTTTTACAAAATAGT

Sequence 2281

CCGGGCAGGTTACAAGCTTCGACCCACGCGTCCGGTCATTATTACCCTCACTGTCAACCC
AACACAGGCATGCTCATAAGGAAAGGTTAAAAAAGGAAAGTGGCGCCTCG
AGCGGCCGCCCGGCAGGTACAAAAAACCTTACATAAATTAAGAATGAATACATTTAC
AGGCGTAAATGCAACCGCTTCCAACCTCAAAGCAAGTAACAGCCCACGGTGTCTGGCCA
AAGACATCAGCTAAGAAAGGAACTGGGTCTACGGCTTGGACTTTCAACCCCTGACAGA
CCCGCAAGACAAACAACTGGTCTTGCCAGCCTCTAGAGAAATCCAGAACACTCAGCC
CTGACACGTTAATAC

Sequence 2282

GCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCTACCCACAGCGTCCGTTT
ATGTTCAAGCAATAAAGGTTCTATCCGTAAAAAAGNGCGGCCGCGC

TABLE 1

379/467

CCGGGCAGGTACTATGACTAGACACATGATGCATGGCTAAAAAGCTCTTCTGGATAACTC
CTTAGNGAAGGNCTAACNNCCCCACCACCATCAACCTACAGCCCTGCCTTTTTTTTTTTT
TTAANAAGTCTGTCAACCAATNTTGTCTGGNGCTNGATTTCAAATAATACATTTNTAGA
ACCTGCCCCGGGCACACGCCNATAACGANTGGTTTTNNNTTATATCAATTAACGTTAA

Sequence 2283

CCGCGGTGGCGGCCGAGGTACTCCAGCCTGGGCGACAGAGCAAGGCTCAGTCTCAAAAAA
AAAAAAAAAAAAAGGAGAGGAATAGTAAATTTATAGTGGAGAAATCTGCAGTCACTAAC
TTAACCAATAACCACATGGATGTATCCCTTATTAAGGTAATCGAAAGGGCACAGCGTT
ACTTCTGTGGAATTCTTGCCAAAATGCATAATCTCAATCAAATCATAAGAAAACATCAA
AATTGAGAGGCATTCTACAAAACCAATAATTAACCAATATTCATCAAAGTGTCAAGGTC
ATAAAGACAAGATGTTTATAGAAATACATTAATTTTGGTTTCTACTTAAATTTTATTTT
TTAAATAATTGTTTATAGAGATGTGGCCTTGTTAGTTGGCCA

Sequence 2284

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGGATTTTTTTTTTTGTTTT
TTCTTTTTTTTTGGTTTGTTTTAAATCAGTGCATAAATTTTCTTTTCTCATTTTCAGCA
GATGGACAAACAGATGGACTCTACAGCTAAGTGGAAATATCAAAGGTAGAGGGGTGATTCT
GTGAGACTGATAGGCCTGACTATTCTCAATTCTCCCCACTGCAGTGTTACGCGGACGCG
TGGGTGGAANACCTGCCCC

Sequence 2285

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTGCGCTCGTAACAGTG
TAACATGTATTATGGTAACTTCTAATCTTGTGGCCTTAGACAGTCTAGTCCAAAGGCATA
AAGAAAGTNTGCTTTAAAAAAGGAATGTTATCTTCAAAAAAAAAAAAAAAAAA
AAAAAAGT

Sequence 2286

TAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACGACTCATATAGGGATCTAGA
TCACGAGCGGNCGGCCGCCGGGCAGGTCTCCCATCTTGCGCAAGTTGGTCACGTGGTCA
CCCAATCTTTGATGGCTTTCACCTGCTCATTGAGTAATGTGTCTCAATGAAGTCACCG
GACGCGTGGGTGCAAGACCT

Sequence 2287

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGAACATCTTGAT
TTACAAGGGACAAAATGATGCAAAATTATGCTGTCCAACCTACTGGTGAAGTGGATCAG
AATGGTCCAAGGACTGTTAAACAGAGGAAGTATTTACATTTTGAAAAGTGGCGACGCGT
GGGTGCAAGCTTGACACCT

Sequence 2288

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGNCTGGTACATAAANAATTTN
TTNGTCTTTAAATNGATACNAATGTCTATCANCTTTAATCAAGTTGTAAGTTATATTGAA
GACANTTNGATACATAATAAAAAATTATGACAATGTCCTGGAAAAAAAAAAAAAAAAAGT
GCGGCCGACCT

Sequence 2289

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCATACTTGTCATTG
CGTAGACTTCTTATCAAAATTTACATTNATCTGTAGGAAAATGTAAAGTTGGTAAAAAT
TGTTTACACAAATCACACATTTTCCATCCTTGACAATTGCAGNGTTTTTTTTTAAATATT
GCTGTATTAAGACAATTTTAACTGAAGTAGGTTGTAGAGGCTANAAACCTGATTAATAGA
GCAGTATTAGACAATCTAACTGAAGTAGGTTGCAGAGGCTAGAAGAAACCTGATTAATA
CGGACGCGTGACCT

Sequence 2290

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAAGCTTCGACCCACGCGTGCG
AGTCAGGGGAAGTTTGTATGTTACATTTATTTCAACAGAACTATTTTAAATATATCAA
GGGGTTTACTATGCCAAACAAATTTCTAGGGAAAAATACTGCTAAAAATGGATGCCTCAT
CAGAACATGCTGTTGAGTCCAATGTGCCATAAGACATTTTAGCATGTTAAATAGCACTTT
TAATAGCAAAAAAGGCACATCAACTGCGAAGTTATCCTTAGTTTGCAATGCTTTTTCT

TABLE 1

380/467

AGATTAATGATTTTTCAATCATTAGGGTACCTGCCCCG

Sequence 2291

CGCTACCTGCCCGGGCGGCGCGCCGCGCACTTTTTTTTTTTTTTTTTTCAAGTTTTATGA
TTTATTTAACTTGTGGAACAAAAATCGGACGCGTGGGTGCGACGCGTGGGTGCAAGCTAC
CT

Sequence 2292

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGGCTACCTCCAAGCAGGATGATGGG
CTAGACATGGAGCATACATAAACGGGCAAGATTCAGTCCCTGACCGCAAGGCACTTACAG
TCTAGTTGGGAAGGGAGACACAAATGTACCT

Sequence 2293

CCGCGGTGGCGGCGCCCGGGCAGGTACCAGAGACTCCAGGAAAAATCAAAAATTTGTTT
TTGCAATTAGCCGAGCACGTAGCCCAGTCTCTAAATGTCACTTCATATTATGTTTGTA
ACAATGTAATAAGAGATCAATGGCCATAAGAAGCCTGAGAATTAGTGCCTACAGACCCA
GTTCTGATGAATTCTCAGCCCAAAGAATCACCTGATCATTTCTAGGTTCTAAAAGTT
TCAATTATTGGACAATATTGCATAGCTAGAAAAAAAAAAAAAAAAAAGTGCGGCCTCGA
GCGGCCGCGCGGGCAGGTACTTTGAGCAGGATAATAACATAAATTTCAATTAAGTTG
TATTTATAGCCCCAGTAACCGGAAAGAATTATAAGTAATTATGGAAGTATTATATTCTGA
CCATCAAGAGTTAAAAACAAAGAGTTCCTACTAAAGAGGAATATTTTCAAGATGATCT
GGTCCATCATGTGCATAGTTAAAGAATGGTTGGTTTAATAAAGATTCTTTTGCAAAATAA
GAAT

Sequence 2294

AGGTACAAGCTTCGACCCACGCGTCCGATGAACAACCTGGCTGCTCTGTCCCAGGGTCCAA
TATCCAAGCCCAAGAGGAAAAGAGAGAAAAAAAAAAAAAAAAAAAAAGTGCGGCCGG
CCGCCCCGGGCAGGTACAGATAAATATAGGAACTACTTCAGATTATTGGACAAATAAGAA
TTTCAGTGTGTCACTACCTATAATTAAGTAGCAGCACACCACAACCACAGCAAGTAAACA
CTAATCTCCTCTACTGCCTTTTTGGGGTCTTTTCCAGTCACAGGAGCTAATTTACAGGGA
TACCACTGGGTTTCAACCAATCTCTGAAAGTTCCTTTATTATGAGTTTTGAAATTTAACT
AGTGCATCACCTACAATTCTGTTGGCTAGTTTTTTTCTTACTCTTCACTAATTAAGTTT
AATACAATATGTAATGGTTTTCAAAATTTT

Sequence 2295

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGGAGGTCTTCGACCCACGCGTCCGAAA
CTTTAATTTTTAGGAATAACATATTGACTTACTGAACTGAAGCATTCTGAGTTGAAAGGA
GCCCCAGAGGAAAGGAGTTCTGTGTTGCTCACATGTTAAAGCTTGCTCACCTTCAGAGC
AGAGGGAATACCTATCTTCAGATATCCGCCATTTTTCATCTCTTCATTATAGTCAAAACAG
TGTGACTTGAGAGTGTTGCTCTGGTGTCTGTATTCTGGCTTATGAAGATTATTTGAAAAA
GAACTCTTACTACATTGAAATGCAGACTTTTAAAAATTTAAATATTGGATTAGGCAGTCA
AAAAACCAACAAGCATAAAAGGTGAGTAAGTTGTAATCTTAAAGTAAAGGTGGAAAAAC
TCATTATAAATGGAAGAAAAGTTTTGATTTCTTTTTTTGTTGATGGGCAGTATGCCATA
TTATATCAAAGTTGGTTAAAAAATACTTCCATCAACTATTTTTATTTAAATAAACAT
TT

Sequence 2296

CCGCGGTGGCGGCCGAGGTATACTTTGCACCTTGAAAATATAAAATAAAATAAATTTAAA
AATAAAGGTAATTTTGTCTTCCATGTCAGCTGAAAATAAGTGAAGACTGGGTGAGTAAT
AACATTGCTTTGCTGAATTCAGAGAATTCTAATAAAATATTTTATGTTGGGAAGCTATCT
GTATTAATAAAAAATGATCTAAGGCTGGTAACAGTGGCCATACTTATAATCCAGTGCTTT
GGGAGGCCAAGGCAGAAAAATCACTTGAGGCCAGGAGTTTGAGATCAGCCTGGGCAACAT
AGTAAGACCTTATCTCTACCCGGACGCGTGGGTGCACTCAAGACCTGCCCGGGCGGCCGG
CCGCACTTTTTTTTTTTTTTTTTTTAAGCTGCTCCTTGAGGATAAGGGCTAACTCACAG
GCAGTGCACCAAGAGCCACTATAAAAAGATCCTTAATGAGCAAAATATATCC

Sequence 2297

CCGCGGTGGCGGCCGCGCGGGCAGGTCAAGTCGACCCACGCGTCCGCTTGTTTGCTCTA

TABLE 1
381/467

TCCCATAGGAGTTGGTATGTTGTGTTTCCAATATCATTTACTAAAAGAAAATTTTCCTTTT
TATTTCTTCATTGACCAACTGGTCATTTGCATGTTCTTTAATTACTATGTGTTTGTATAG
TTTTCAAAATTTCTCTTATTAATTTCTAGGTTTTCTGTGGTCAGAGAAGATGCTTGATA
CTACTTTAATTTTTTGAATGTTTTAATACTTGTTTTGTGACCTAACATATGATCTACCT
TGAGAAATTATCTATATGCTGAGGAAAATAATGTGTATTACACAGCCATTGGATGAAATAT
TCTGTAACATCTCTTAGGTACCT

Sequence 2298

GAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGCTTTATTTATTTCTTTTAGGAAT
TGCAGGTTCCCTAACAAAGTAGGGGTGAGGGGGGTGTTACAAACCAGTCACTAGGCAGGAA
CATTAGACTCCAAAAGCAGAGAAATGCTTAATTTTTCTTCTACCTGTTTCACCACATTCA
TGTAAGACTGTAGTAAAAAGATGGTGAATCAGGCTGAATCAATCTAAATAACAACCTAA
GGCTCCCAATCACATGAACCTAGGACCACTAAATCCAATGTCAGACGTGTTTAAATGGT
GCACTGCTCTACATTTTTCTATTATGCAAAGAGCTAGAAAATAATGGTAGTGTCAATTATG
ACATTCCATGAAAATGAANGAAAATCTTTCAGGAAAAATTAAGAAAATAAAAAATGTTTAC
TAAAGAAAAGTGGTCCGGCTAAGTGCTANAGTTTNTTTCNNTTTTTTTTTA

Sequence 2299

AGGTACTATCAAGCTTTATTTTACCTGCAAAAATATTTTAGCTACACTTGAAAAAATA
AACTTGAGAATATAACTTCACATTTCTAAGGCCAGCGGACGCCGTGGTCTGAAGCTCGACC
TGCCCGGGCG

Sequence 2300

AGGTACGATTTTCCCTTCGCTTGAATATTATCCCTGTATATTGCATGAATGAGAGATTTT
CCATATTTCCATCAGAGTAATAATATACTTGCTTTAATTCTTAAGCATAAGTAAACATG
ATATAAAAATATATGCTGAATTACTTGTGAAGAATGCATTTAAAGCTATTTTAAATGTGT
TTTTATTTGTAAGACATTACTTATTAAGAAATTGGTTATTATGCTTACTGTTCTAATCTG
GNGGTAAAGGTATTCTTAAGAATTGTCAGGTAATACAGATTTTCAAACCTGAATGAGAGA
AAATTTGTATAACCCATCCTGCTGTTCCACCTGCCCGGGCCGGCCCGCTCTAGAACTA
GGTGGGATCCCCCGGCCCTGCAGGGAATTCGATATCAAGCTTAATCGATACCCGTGACCC
CTCGANGGGGGGGCCGGGTACCCAGCTTTT

Sequence 2301

GGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAAGCTTCGACCCACGCGTCCGGTGGCGA
GTGCCTGTAATCCAGCTACTGGGAGGCTGCGACAGAAGAATCACTTGAACCTGGGAGGC
AGAGGTTGCAGTTAGCCAAGATCATGCCACTGCACTCCAGCCTANGCAACAGAATGAGAC
TCCATCTCAAANNAGAAAAAAGTGCAGGCACTGCCCGGGCGGCC
GGCCGCACTTTTTTTTTTTTTTTTGGCATAAGGTTCAATTTATTGAGTGGAAGCTT
ACAAAAGGGCCACTGGCCCCCTCC

Sequence 2302

CCGCGGTGGCGGCCGCACTTT
TTTTAGGGTTGAGGGGAATGCTGGANATTGNAATGGGTNTGGANACATATNATATAAGT
AATGCTAGGGNGAGTGGTAGGAAGTTTTTTCATAGGAGNGTATGAGTTGGTCGTAGCGG
AATNGGGGGTATNCTGTTTGAANACCTGCCCGGGCGGNCGGCCNCACTTTTTTTTTTTTT
TTTTACTTTGGCNGGGGNTTTTTCTTTCTTTTTTTTTTTCAGCTACNGGAATTTANCCN
ATTCANAGGAAATCTTCCCATTAATTANGGAACCTTTNTTACANANTTACCAAGTNTGGG
CNNCCCNATAAGAAAAAGACTGAAATAACAACAACNACTTTAANAAAT

Sequence 2303

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCNNTNTNTTTTTTTTTNTTNGCCAG
NTANAATCTNAGCTTTTTATTTGTAGGAAAAATAAACAGATTNCCCTCCNNAACANGGC
GTNACAANAANGAGGCAATNAAGGGAAAAANGCANATNCTAAACGGACNCNTGGGTTNA
ANCTTGACCT

Sequence 2304

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGT
CCGAGAAGAGTTTGCAAATGCAACAAAATATTTAATTACCGTTGTTAAACTGGTTTAG

TABLE 1
382/467

CACAATTTATATTTTCCCTCTCTTGCCTTTCTTATTTGCAATAAAAGGTATTGAGCCATT
TTTTAAATGACATTTTGTATAAATTATGTTTGTACCTGCCCCG

Sequence 2305

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCCGCA
CTTTTTTTTTTTTTTTTTGNTTCTGGGTGAAGTTTATTCTGTTTTCACATCTAGGT
TGTTGGGGAGAGTGATAGACAAAGTTCTGGATTCTGGGCATCGTCGGCGCATGCTTGTA
TCCTACTTGGGAGGTTGAGACAGGAGGATCACTTGAGGCTAGGAGTTGGAGGCTGCAGTG
TACCTGCCCCG

Sequence 2306

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTGGCCGCACTTTTTTTTTT
TTTTTTTTTTTTTCTTCTTCTCTTGCCTGGATTCACTCCAGAAATGTTAGGACTACC
TCAGTTTGTCTCAAACCAAACCTCAAACAACAGCAGCCACTGGAAATCAAGGAAACTTCA
CTAAGAATTTAAGATCATCAAAACACCGCCTCCTTCCCATTTTAGCCGGACGCGTGGG
TCGAAGCTTGACACCTGCCCCG

Sequence 2307

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCATTAATA
TTCTGAGAGGTGAATGTAAATATAAAAGGTATAGTTTTTTTTTTAAAGAAAACAAT
NAACTTTCAAAGAGAAAACCAAAAAAAAAAAAAAAAAAAAAAAAAAGTGCGGCCGGCC
GCACTTNTTTTTTTTTTTTTTAAANANANATGAGGTTTTGNTATGTTGCCCAGGCT
G

Sequence 2308

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACC
CACGCGTCCGTTCTAAATGATCGACAACCTCTCAAGCAATAACTTGACTGTTGAATAGAAG
ATTAAGAAAAGTTGGTTAAAAAAAAAAAAAAAAAAAAAGT

Sequence 2309

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAAGCTCG
ACCCACGCGTCCGAAATAATAAGCTAGAAGTAATTTTTCTTTTGTCTATTTTCCAA
ATTGACTCGATATTGATGGCTACTTTTGTAAGTTTTATTTAAGTTTAAAGGGAATATT
ATTGATCACCTCTATGTGCTCAGTACCT

Sequence 2310

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGCTTCGACCCACGCGTCCGCA
AAGTTCAACAAATTCGCTACAGCCTAAGACTAGCCTCACCAGTCTTTTTCCCATTAATC
AAAACTTTGCAGAAGAGACAATGATTTTTACCATTCACTCAACCAGTTTGCACAGAGAGA
GGCTGAAGCCTGACTTGTAAGAACTCTTGCTCTTTTGCCAGTGTCAGGTTTCTGGGT
TCCCCTTCTCTGAGTGGCTTTGATGACCCTGCTTGCTGTGCCATAGCTATGGGGGGGCCA
AGCCATGTTACCCAAAAAAAAAAAAACNNTNNNNNNNGGTGCGNCGNCCCTCGNGATCT
AAANCCCCATAGGGGGNGGGATTAACAATTNCCATTCCCNNGGGGAAATTTTTTGGCNCC
TTTTNTTGGGGAANAAAATTTTTTTTTGNAATTAANGGTTAAAAANCCNCCCCTT
TTTGNAAAAATTTANTGGNTTTAACCCCCC

Sequence 2311

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTAANGCTG
CTCCTTGAGGATAAGGGCTAACTCACAGGCAGNGCACCAGAGCCACTATGAAAAGATCC
TTAATGAGCAAAATATATNCCCTATTATTTTCTACAAGTTGCTTTTTACTTGAGTAGGA
ACCCTTGATTG

Sequence 2312

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACCTGGTATGCCAGA
TGAGAATGACAGGAGCCATCCGCAAGCAGTTGGCGGCTTTCTTAGAAGGCTTCTATGAGA
TCATTCCAAAGCGCCTCATTTCCATCTTCACTGAGCAGGAGTTAGAGCTGCTTATATCAG
GACTGCCCAACATTGACATCGATGATCTGAAATCCAACACTGAATACCACAAGTACCTGC
CCGGGCGCGGCCGCACTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGCTTCA
CATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCTCAGAGTTT

TABLE 1
383/467

AAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGA

Sequence 2313

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGCAAGCTTCGACCCACGCGTC
CGCAAAGTTCACCAAATTCGCTACAGCCTAAGACTAGCCTCACCAGTCCTTTTTCCATT
AATCAAACTTTGCAGAAGAGACAATGATTTTTACCATTATTCAACCAGTTGCACAGA
GAGAGGCTGAAGCCTGACTTGTAAGAACTCTTGCTCTTTGCCAGTGTGCCAGGTTTCT
GGGTTCCCTTCTCTGAGTGGCTTTGATGACCCTGCTTGCTGTGCCATAGCTATGGGGGG
GGCCAAGCCATGTTACCCAAAAAAAAAAAAAAAAAAGTGC GGCCGGCCGCCCGGGCA
GGTGTCACTTTCAACTTGGTTATGCCTAAACAAAGTCTCCCTCATCTCCAAACAATTTC
TCCCGACTTTCTTTCTTTTTGAGATGGAGTCTTGCTCTGTGCCCCACGCTGGAGTGCAG
TGGCATGATCTTGGCTCCCTGC

Sequence 2314

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTTTTTNAAATGCTCAAAAGA
ACAATTTTTATGTAAGTTTGATAGAGGCCTCAGGTAATTCTACAAAATTAACCCCA
TTTTCAATGCAAAATTCCCGAACATAAACAAATGCTTTAAAAATATGGATGGNGTGGTT
ACTCTTTTAGTAATACTTGGATTATCATCAAAGATTTAACTTTATTTTTGNGTGTGTG
TGTGTTTTTTTTTTGNGNGNGTTTTTTTTTTTTTTTATTATACNCTAAGTTTTAG
GGTACCTGCC

Sequence 2315

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACC
CACGCGTCCGACTTTTTGTCTTAGACCCAGTTAGGGTCACCTTACAGTGCAGGTGGAAAG
AAAGCAGGACTGCTGAGAGGAGCTCAGGA

Sequence 2316

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACGCGT
CCGGATTAAAGTCTACGTGATCTGAGTTCAGACCGGAGTAATCCAGGNNGGTTTCTATC
TACTTCAAATTCCTCCCTGTACCTGCCCG

Sequence 2317

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGNCGAGGTGTACAANGCTTCGACCCACGCG
TCCGCCACACGTAAGTGAATGCTCCTTTAAATAAAGCGTTTGTGTTNGANGTTAAAAAA
AAAAAAAAANAAAAAAAAAAGT

Sequence 2318

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTNNTTTTTTTTTTTTT
ATTATCTAAATCAGNTTTATTTAAGAATTTCCAACANTGACAACTNTTATAAGGGGCAT
CCAAGCACAGGACACANAAGTGCNACAAACAGCATTCTTACGGACGCGTGGGTCAAGAC
CTCGGCCGCT

Sequence 2319

CCGCGGTGGCGGCCGAGGTACAGAATGGTAAAAATTCCAATCAGTCAAAAGAGGTCAATG
AATTAAGAGGCTTGCAACTTTTTCAAAAAAAAAAAAAAAAAAAGTGC GGCCGGCCGCC
GGCAGGTGCAGCGGCAGCACTTTTTTTTTTTTTTTTTTTTATGNTTTTATTTTCA
ATTTTTATTTGGTTTTCTTACAAAGGTTGACATTTCCATAACAGGTGTAAGAGTGTG
AAAAAAAAAATTCAAATTTTGGGGGAGCGGGGAAGGAGTTAATGAACTGTATTGCACA
ATGCTCTGATCAATCCTTCTTTTCCGGACGCGTGGGTGGAANACCTCGGCCGCTCTAGA
ACTAGTGGGATCCCC

Sequence 2320

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCTCTTGTCTAGT
ATACTCAAGGCAGCCTAGTAAATTATTATTTATCTATACAATACTGGAAAACTNGNAGA
CAAAAACATGACTTGAATTGCTAAAAAAAAAAAAAAAAAANGAGGGAGAATGAAACT
TCCGGACGCGTGGGTGGAAGCTTGACCT

Sequence 2321

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTNCATTTACATACAAGTGA
TCCAAACAGGAAGTAAAGCNTTATGAAAAAGAACATGATGCAAATCATTTCCCNNGA

[illegible]

TABLE 1

385/467

AAAAAGAAAATTTTTTTTTTTTTTTAAGCCNTTTTAACCNCCAAAAAANNAAGTGT
TTTCNNNCGNNNCTTTTNNAAAANNNGGNACCCCCCNGGNGGGGGGGANNTTTTTTAA
TTTTTTNNCCCCCCCCTNGGGGGGGGGGCC

Sequence 2329

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCACGGTACTGAGGAAATATT
TTGTAAAGTGAGCTTTGGGTATAACTTAGCCCCATCATTATTTAGAGAATAGAGGAGGAA
GAAAGAGGAAGGATTTTAAAGGCAGACAATGACAGACCATTGAGGATAGGTAGGGTTTTA
AAGGGAGCGGACGCGTGGGTGGAAGACCT

Sequence 2330

CCCCGCGGTGGCGGCCGAGGTACCCTAAAATTTAAAGTATAATAATAATAAATTTTTTTT
TAAAAAAGAGTGTTGCTTTTGTCTTGTATTTCTGCAGTTTGCATGTGATATTCTTAGG
TATAGATTTTTTTAGTATTTGTCCTGTATATTGTTATTCGAGCTTCTGGGGATCTGTGT
TTTGGTGTCTATCATTAACTTTGGAATATTCTCAGTCATTACTGCTTCAAACATTCATTC
TGTTGCTTTTTCTCTTCTGGTATTATCATTACACATATACACACCTTTTGAATTCTCC
CACAGTTCATAGATATTCTGTTGTATTTATTTATTTTTCTCTTTGCCTTTTAGTTTTAG
AGATTTCTATTGACATCACTTAAAGATGATTGATGAGTTGATGAGAATTGAGAGAATTGA
TGAGAATTGTTGATGAGAATTATTCATTTGTGTTAGTGTTCATTCTGCCATTGNCT
TTTGATTTTTAGAGCTTCCATCTCTCTGCTTACA

Sequence 2331

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACCTTGACCGTGACCGTTTG
CTATATTCCTTTTTCTATGAAATAATGTGAATGATAATAAACAGCTTTGACTTGAAAAA
AAAAAAAAAAAAAAAAAGT

Sequence 2332

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTATTTTATAGAAAAGAA
AACAGAGGCTCAGAGAGGTAAATTTTTCTGGATGTCCTAGATGTTAAATGTTACAACCT
TAATTGACCGATTCCAGAATCAGAGCTATTAACACAAAACCTATTTAATTCTCTCTAAA
TTCTTAAAGACCCAAGAAAAACAACTTTATTGAGATAATTAGGAATTTTTTTTAAATA
TCGGACGCGTGGGTGGAAGCTTGACCT

Sequence 2333

AGGTCAAGCTTCGACCCACGCGTCCGTGGTGAACACAGAGAAGACAGTCTTGTATATATT
CCTCTGTATTCTGGGGAGCTTTGACCTTGAGCTTTGTACCTGCCCG

Sequence 2334

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCAACAC
CTATGTTTATAAAAATTTGAAAACATTACATATTGTATTTAAACTAATTAGNGAAGAGT
AAGAAAAAACTAGCCAACAGAATTGTAGGTGATGCATTAGTTAAATTTCAAACCTCATA
ATAAAGGAACTTTCAGAGATTGGTTGAAACCCAGTGGTATCCCTGTAAATTAGCTCCTGT
GACTGGAAAAGACCCCAAAAAGGCAGTAGAGGAGATTAGTGTTTACTTGCTGTGGTTGTG
GTGTGCTGCTACTTAATTATAGGTAGTGACACACTGAAATTCCTATTTGTCCAATAATCT
GAAGTAGTTTCCTATATTTATCTGTACCTGCCCGGGCGGCCGCGCACTTTTTTTTTT
TTTTTGCNNGGGNTTTTTCTTTCTTTTTTTTCA

Sequence 2335

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTNNNTTTTTNTTTTTTTTTCTT
TAAACACCANTTAGTTTATTTACAGGACAAGAATTTACCATNTAACANTCTTTNACATAA
ATTCTGNCTCCCCCACTTTTTTTTTTTGAANATAACCATTCTTTTTTTTT

Sequence 2336

CNAANNNGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATCTNTATCAGAGCTTTT
GGGTGACCAGGCACACTGTCAATGAGCAGTAATACGGGGAAAGGAATCTTTGGGGTTTTT
TTTGGTTTGGTTTTGTTTTGTCGTTATTTTTTGTTTGTTTGTTTTTGTTTTGTTTT
TTTAGCAGTAGGCCTCAACAGTGGACTTAAATACTCAGTAAACCATGCTGTAAACAGAT
AAGCTGTCATCCAGACTTTGTTGTTCCATTTCTAGAGCACAGAGCAGATTTAGCAGAATT
CTTAAGGCTTTAGGATTTTCAAGTGGTAAATGAGCACTGGCTTCAACTTAGTCACCAGC

TABLE 1
386/467

TGCATTGGCCCCTAACAAAGACAGTCAGCCTGGCCTTTGAAGCGTTGCAGCC

Sequence 2337

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAACTGCACATATTTAA
AACATATAATTTGATACATTTTGACTCACAAAACAATCACCACAATCAAGANGATGAGNN
TATAGATCACTCCCAAAAGTTTCCCTGTAGTCTTTTGAGTCCTTTCTTCATGGCCTTCT
TCATCCATCCACCCCATCTCGGTAACCAATGATCTGCTTTCTGTCACCACAAATTAGTGA
GCACTGTCTAGAATTTTATGTAACTGAATAATAAAGATTTTACTCTTTG

Sequence 2338

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTC
CGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGGAATCATCATTAACTTTAT
TTGNCACTNTTGATAGACATTGGTCCACTCCAACATAAAAAAGNAGAATTCACCCACTTCC
ACTTAATATTCTATAGAATGAAGTTGTACCTGCCCGGGCGGCCGCCGCCCGGGCAGGT

Sequence 2339

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAGATTTTTTACACAA
AGAACTTAATGCTGTATTAATAAATTCAGTGTGTAGCTTCAATTGGGATAGTTCCAAA
GTGAAGATTTTGTGAGGAATAAGTGCAAATTTTTTTTTATTTAAAAAATCTTTGAAA
CTCTAAGTCTTTGTGTCTGCAATAAAATTGTACCTGCCCGGGCGGCCGCCGCCGCACTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTNGAAANGTTTGAAGTTAACTCATTTTATTNTAGGA
TTNGGATTTCAACATTTTAATTTNTTTGGAATATAAGTCANTTTTTGCAAGCTAAAAAAT
AGAATCAAA

Sequence 2340

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGACTTGATTACATAACCAACCA
ACCCAGGCTGTCATGCTAAAAAAGGGCAGAATCTTTGCTGCTGAACTACTGCATAGGG
TGACTACCATTGCTCCTTTAGTTTAGTTTGGCTAGCAGAAAGGTGGTCTTGCCATGTAAAT
AAAGCCTCTCAGGTAATCAAAATGTTTCTTTTTTACTTTTGCTGGTGTTTTTTCTTTT
CTTTTTTTTTCAGCTACAGGAATTTAGCCAATTCAGAGGAAATCTTCCCATAATTATGG
AACTTTCTTACAGATTTTACCAAGTCTGGTCAACCCAATAAGAAAAAGACTGAAATAACA
ACAACAACCTTCAACAAATAAAAAAACAAGTTAAGCTAAATAAACAGATG

Sequence 2341

AGGTACTTCTTACATAGTGATTGATGTCTCATGTCTCCCTAAATGTATAAAACCAAGCT
GTGGCCGGACACCTTGGGCACATGTCATCAGGACTTCTTGAGGCTATGCTACTGGGCAT
GTCTTCAACCTTGGCAAAATAAACTTTCTAAATTAATTGAGACCTGTCTCAAATTTTGGG
GGTTACAGGTGAGTGGGCTCAGGCATGTGCACTAGTATGACTAAAGGTCATAGACTATT
AGACTATTAGTCTATGACCTTCCCTCTAGAAACACTCGACTGGTAAGGGAAGAATGCCTCA
ACTGAGCATGTGCACAACTCCATAAACACACTTGTGCTTGGGAGCCTNTCAAGTGCTG
GCAGGCCACTGCTCAGGTGGATTCTTCCCTCCTACCCGGAGGGAAGAATCAGGGGAGAAG
GGACACAAGCCCCTGAATGCATGCCAACACGTAA

Sequence 2342

CCGCGGTGGCGGCCGAGGTACCTTCAGGTATTGCCTATTTAATGATCATATATACTTGCA
TAATATCATCCCTTCCCTTGATTTCTTTCAATCTAAAAATAAATATGAGAAAAACAAAA
AAAAAAAAAAAAAGT

Sequence 2343

ACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGGACTCAAGACC
AGATGGCCAACTAGAAGCAGCCAGGAAGAATCTCTCATGGAGAGACCAGGAATTTGGG
AAGACTGGCACACTCTGAGCAGATCTTTTGAAGGAAAACATTGAGGGTGGATGAAGGGAG
GATGCAGAGCATGGGCTGAGGGGGCAGGAATCTCAGAAGCCTGCACAGGGCTTCCAAGCA
CTAGCATTCCTTACTAGCCCCCATTAACTCCTGGGGAAGGGGTGAGTTGAATAGGTGGNG
GAGTGGCCCGCTCTTACCATGAACTCCAGAATCCTAGCAGCAAGAGACCCCATGACCCC
TGTGGACACGAGCTGTCCGGACGCGTGGGTGGAAGACCTGCCCG

Sequence 2344

CCGCGGTGGCGGCCGCTNNCTGCCCGGGCGGCCGCCGCACTTTTTTTTTTCTTTTTGG

TABLE 1

387/467

AAAAATNTNNNGACTCTGGGGATAAAANTNCNAATTAAATNNATNCNANNTTTTAAAGGC
TATTAANNANAANAATATTNGCTAAATTNNCCTTNTGCATAACAACTGTGGNTNTACCA
TGTAANGTTTAAAAAATGTNTAACCNCAATTTTACGCTCCTCTGTNACANGACAAGGAC
TCCATTCANTGNCATTTAAGAACTNAATGGGTTGAN

Sequence 2345

AGGTCAAGCTTCGACCCACGCGTCCGATAAGCCAAAAAATGGGAGACAATTTACATGGA
CTTTGGAAAATATTTTTTCTTTGCATTCATCTCTCAAACCTTAGTTTTATCTTTGACC
AACCGAACATGACCAAAAAACCAAAAGTGCATTCAACCTTACCAAAAAAAAAAAAAAAGTG
CGGCCGGCCGCACTTTGTTTCTACTGGGTTTAGACCGTCGTGAGACAGGTTAGTTTTACC
CTACTGATGATGTGTTGTTGCCATGGTAATCCTGCTCAGTACCT

Sequence 2346

CCGGGCAGGTACCTGCTCCATTTCTCCTGCAACATGTGGATACAGTAATATGATCATACC
CTCCCTTGTTCCOCTCTAGGCCACTTTCCCTTTAAATATTAACACCATCATAATCATCT
TTGGAGAAAGACACCTGGATCTGTCTGAACCTTGGCAAAAAATAAATAAATAAATAAAA
ATAAAAACTCTTCTCAATTGATTAATACCTGTACAGATACATTTTGGTTTACAAATCA
ATGAACAATGGAGGGAACCTCTGTCTTAATCTTGGTACCT

Sequence 2347

CCGCGGTGGCGGCCGAGGTCTCTTGTTGNTATTACACTTCTACGTAGATTATATAATAT
TGCTTGTGGACATAATTTGATCAATAATATATAATGTCAGTCACTACAGTGATCCAGAAT
CTTATTCTGGCTATGGAGGAAGCTTAATTATTAAGCAACATCTTCTAAAAAGCTTNTGA
ATTTCTGATTCATAAGAAAAACAAAACAAATGAAAAGAGTATCTNTAACTGAAATAACAC
TGAAGTTCGAGCTTGGGCCCTCCTTTGTGTTCAACATAATTAACNTTCAAGATGAAA
CCGGACGCGTGGGTGCAAGCTTGACCTGCCCGGGCGGCCGGCCCGGGCAGGTGTTTN
TTCTGGGATATCTTTTTCTTCTGGGCAACCTCCTCTTCTGGTTTAGGAACAATCTGTTCC
TTTTCCGNAAGGATCATCTCAATGTGGCAGGGAGAGCTCAT

Sequence 2348

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCTTCGACCCACGC
GTCCGGGCAATTATCAAAAACACTTGGAAAAAGATTTTATTCTACTTTTAAACATACA
TCAAATCTAAATAAACTAGGCACCTTCAGCTGGGCCTGGTGGCTCATGCCTGTAATC
CCAGCACTTTGGGAGGCTGAAGTGGGCAGATCACTGGATGTCAGAAGTTCGAGACCAGCC
TGGCCTACATGGCGAAACCCCTNTCTACTAAAAATACAAAAATTAGCCGGGCTTGGTGG
TGGGGACCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCACTTGAACCTGGG
AGGNGGAGGTTGCAGTTAGCTGAGATCACACCACTGCACTNCAGCCTGGGCCACAGAGCA
GGACTCCATCTTAGAACAAAAACAAACAAACAAACCTCATGCACCTTCAAGAAAA
TCAAACAAGTTTTATCTAATTAAGAAAGAATTTT

Sequence 2349

AACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGC
GTNCGCTTTAACACACACTAGGCTCTTTGTGTATTATGATNCAGTGCTATTTGTAAGTGT
GTCCAGNGACCAAATTGCACTCGACTCGATCAGCTGTTTCATCCATTTCTGTGTTTTTCC
TGTCAAACATTAATCCAGCAAATATATGAGGTATTTACCAATTTATTTCTTAGTATTAC
AAAATAATTCATTAGCATAAAGTACCTGCCCG

Sequence 2350

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTAAATCATAGAGC
TGCCCCAACATCTAGACAGTCTCTCCTACTGATTATAAATGAGTGAAAACCTATCAGTTAG
AAAAATCTAATTTAAGTTGTTAATACATGTTTCTTTGGTGAGCACCTGGATATATTTATC
ACAAATTCTTTTATACAAATGTCGAAAATGCTTTCAACAAACCTAAGTGTCTTAATTACA
TGCCACTTTTAAAGCATCACTTTAAGGTAAACAAAAATGAAAACCATAATTTTAAATTTAA
ATTTGCGGACGCGGGGGTCTGACTCAAGACCTCGGCCGCTCTAGAAGTAG

Sequence 2351

CCGCGGTGGCGGCCGCCGGGCAGGTGCTTCGACCCACGCGTCCGGATGGCTTGGGTGAT
CAGGACGTCCATTACATCCAAAGGAAGACAGCCTGTGACGTTTCAAAGCAAAAGTCCCC

TABLE 1
388/467

TACCAGCCAGTGAAGCTACCTGATTTCTCAGTATCTTACGCCAGNGACACGATCTACCC
TCAAAACTTAAAAAAAAAAAAAGGGAAACATAAACACATAACAGCAGACCTN

Sequence 2352

GGGCCGNGGNCACAACATTCCCCCTTCCCCAAACAGTAATATGGACACTGATTTAACANG
ACTTATAAAAAAATAAGGCNCATTTATTTTGATNTGGTAATTTTAAAATAGAAACCCCTT
C

Sequence 2353

GCGNGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTNC
GAGCTTGAGTCGACCCACGCGTCCGTGAAAAATGTTGTCTCCTTTCTAAATTCCTCTGCCGA
TTTGGGAAAAAGCAAACCTTGACTTTACCCCGAGGAATTGGTGAAAAATTACTTTTACGCC
TTGCAGCTGTGGAACCTTGGTCTTACAGCCTCTGCTCTTCTGCCAAACGGGCCATGCAGT
TTGGATCAAGAATTGCAAAAATGGAAAAATTAATGAAAAGGCATCTGATAAATGTGGAC
GGCTCCAAATCATGTCCTTAGAAAAATCTTTCTATTGAAAAGGAGACTAAATTGTAATGTG
ATTCACAATGTAACAATATAAAAAAAGTTTTTATATAATTATTAAGGNAGATACTCT
GGTGCTTTACTATTGGATAAAATAAGTAAACCTGCCCGGGCGGGCCGGCCGACTTTTTTT
TTTTT

Sequence 2354

TCCCCGCGGTGGCGGCCGAGGTTTCAAGACCNGCCTGGCCAACATGGTGAAACCCCATC
TCTACTAAAAATATAAAAAATCAGCCGGGCATGGTGGCATGTGCCTGTAATCCCAGCTACT
CAGGAGTCTGAGGAGGAGAATCACTTGAACCTGGAGGCAGAGGTTGCAGTGAGTCGAGGT
TGCGCTACTGCACTCCAGCCTGGACAACAGAGGGAGACTCTGTCTCAAAAAAAAAAAACC
TACAGCTGTTCAAGGACCAGCTGCAGGGNCAAGNGGGGGCCTTTTTTGGTCTTTGAACAC
ATCATAGAAAGNGGNCAAAATGCTGCAAAGCCATGAAGAACATGAACCTTTAACCGGGTAG
ACTAACTGCCCCACTTANACNCTTTTTTTTGGCCCCAAAAACAAGNTTGATTTTGCCCT
TTTTTTTTTTTNTCCATTGGGGGGAAGTTTTTGGAAAAANAAAANGGGGCCNCCCCCCCCCT
TTTTTTTTTNNNNCNAAAAANCCTTTTTTTTGGTTTTTTTAAAAAAAAAAAA

Sequence 2355

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGGCCAGAGACTTC
AAGTCTATCTGAAAAGTCTCCAGAGGTCTAACCCAGATAAATAGCCAACAGGGTGTAGA
GTACATTTTACACCCCAAAGAGTGTGCCCCATGGTGATGAAAATAAAGTGAACATGTTGC
AAAATGAAAAAAAAAACCT

Sequence 2356

CCGCGGTGGCGGCCGCCCGGGCAGGTACCCAACACAACTATTCAATAAAGTAATCTGCT
TTAAAAATAAAACACACTGAAAGGCCGAGGCAGGTGGATCACCTGACATCATTAGTTCAA
GACCAGTGTGGCCAACTGGTGAAAATTAGTCTCGACTAAAAATACAAACATTAGCTGGG
CGTGGTGGCAGGCGCCTCTAATTCCAGCTACTCAGGAGGATGAGGCAGGAGAATCACTTG
AAGCAAGGAGGTGGAAGTTGCAGTGAGCTGAGATCGTGCCATTGCACTGCAGCCTGGGCA
ACAGAGTGAGACTCCGTCTCAAAAACACCACCACCAACAAAATAAACACAACAGAATTAT
TCTGCAAAATACAGATATTGGAGTAGCTGAGTTNCATCTCAAATTTGACTATGCAGGTTGC
AGGGTGATCTTGGCCAACCTACTTATTCTTTTNTGAAGTTCAACTTTTTT

Sequence 2357

CCGCGGTGGCGGCCCGGAGCAAGTGGGCCTGTAGCCCGACTCTTAATCCAGGTTGGTGCTA
TTCAAAGAGATCATCTTTACCCGAGGGATTTCTGGGCATCTATTTTGCGGATCAGAAAG
TAGAGAAAGAAGGTAACCTTTGCTGAAAGCTAGTCTGGGGAGTTAGTAGCTGATACAGATC
AGCATTTCTAACTATGAGATTTTATAATATTCTCTCTTGTCTCGATTCTGAGTCACTGG
TGCTGCTGTGGTGGCATTGTTTATGAACATGTACCTGCCCC

Sequence 2358

AGGTCATGTGCACATTGTGCAGGTTAGTTACATATGTATACATGTGCCATGCTGGTGCGC
TGCACCCACTAACTCGTCATCTAGCATTAGGTATATCTCCCAATGCTATCCCTCCCGCCT
CCTCCCAACCCCAACAGTCCCAGAGGTGATATCCCTTCCCTGTGTCCATGTGTTCTC
ATTGTTCAATTCCCACCTATGAGTGAGAAATATGCAGTGTTTGGTTTTTTGTTCTTGGAT

AGTTTACTGAGAATGATGATTTCCAATTTTCATCCACGTCCCTACAAAGGACATGAACTTG
AGAATTCCTTAATGCAGTGCTTTAATACAGTAAAAATTTTTAGTCTTTGTTTTCTACAAAA
TGCATTTGAAAAGTGCACTCTTGATCTTGNATTTTCTTTCCTTTCTTTAGAATCATATT
AGCAGTTGGACGTATATATAAAATATTAGTGTTACCTGCCCGGGCCCGCCGGTCTAGAAC
TAGGTGGGATC

AGGTGTACAAGCTTCGACCCACGCGTCCGAGCAGAACTTGGCAGCAACAGAGGAAGGGCC
CCTGGAGCCGGCTGTCGTGGATGCCTTTAATCAAGCCTGGCATTGGTTGCTCACGAATG
TCCCAACTCTTCGCTAGGCCATCATGCTCAGGCTGCCAAGGCTTTTCTGTCACCTCT
TTTGTCTCTCACACTGACCAGTCTTACCTGCCCGGGCGGCCGGCCGCCGGGCAGGTAC
CAAGTGAATTTAAATAATTGGTGTGGATTGGCCAGTAGCTAAGTGGGCTTTTAAAGAGTA
TTGAAGATTGAAAGGGTTTTCTTTCTTTTTTAAAAAGAAAAACAACTATTGATTGTA
GATAATGAAAAGCTAGGGTTT/GCCCTCTTCATGTCTACTCTCCTTCAAATAGTTATATC
CAAACTGTTTTTCTNTCCCCTACCTTGTC

CGAGGTACACAGCTATGCACTTTCCGTTTCTGACTTTTGCCACCCTGTCAGCCATGGGGA
GCCCCTGTGGGACTGAAACCCTGAGCTGAATGCGGCCTCATGTCTCAGAGAAACACTGG
CAAGTTGGTCAGAGCCGCGTCTGCATCGAGGCGTAGCTGANCGGCAGGATGGGGGGCTGC
CTGCCCAGGGTCTCTCACCGTGGTGAAGCAGAGCCATGGCTNGCCTAGGACCCTATAGA
TACCATCACTCTTTCTCAGCTCGACTGGAGTTTGCACCTTGCAGGGGCAAAGTAACTCC
CTGCACCCTGAACCAACCCCCATTCTGTTCATTTCAGCAGATAATGATGGAGGGGGGGGG

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTCAAGCTTCGACCCACGCG
TCCGCTATCATATTTCAAATCCTAATGGGAGACAAAAACAAAGTGATGGTCAGTATTTCT
TTGAAATTTCTACAAGGAACTTCAGGCACATGGTGCTGATGAGTTATTAAGAGGGGTGTAC
GGGAGTTTTTTGTAATCCAGAATCAGGATACAATGTCTCTTTGCTATATGACCTTGAAAA
TCTTCCGGCATCCAAGGATTCCATTGTGCATCAAGCTGGCATGTTGAAGCGAAATTGTTT
TGCCTCTGTCTTTGAAAAATACTTCCAATTCGAAGAAGAGGGCAAGGAAGGAGAGAACAG
GGCAGTTATCCATTATAGGGATGATGAGACCATGTATGTTGAGTCTAAAAAGGACAGAGT
CACAGTAGTCTTTCAGCACAGTGTTTAAGGATGACGACGATGTGGTCATTGGAAAGGTGTT
CATGCAGGAGTTCAAAGAAGGACGAGCAGCCAGCCACACAGCCCCACANGTCCTNTTTAG
CCACACCTGCCCCGGGGGGCCGNTTGAGGGCCNCCCGCAGGGNNNGTNTNAAACANNGTAA
ACATGTATTATGNAACCTTTAATCTTGGGGGNCCTTANACAGGCGTNTNTNCCAANGNTTA
ANNAAGNTTGNTTTNAAAAAAAAAAAAAAGGGATGGGTNTTTTTNAAAAAAAAAAAAA

CCGCGGTGGCGGCCGCGGGCAGGTACAGCCTCACATACACAGATGCAGGTGAAGTCACC
AAAGCTGATCTCTCATTCTGTTCTGGGGACAGTTAGCAGCGTAGTGGTCCCAGTGCAGCAA
AAGTTTGAAATTCATTTTCTTCAGGAAAATACCCAGCCAGTCTCTCAGTGGAAACCCTGG
TTATGTCGTGGGGCTCCATTAGCTGCTGGATTCCAGCCTCATAAGGGTGGAGCTCTCCC
GTGTCAGCTCGTAGCACAGAAGGTGAAGAGCCTGCTGTGGGGCCAGTGCTTCCAGATTAC
GTGGCCCCCTTTTGAAATTCAGGCCAGGACATGCTGGACTGGGTGCCATCCACTTC
ATCACCCAGTCATTCAACAGGAAGGATTCCTGCCAGCTCCCAGGGGCTTTGGTTATAGAA
GTGAAGTGGACTAAATACGGATCCCTGCTGAATCCACAGGCCAAAATAGTCAATGTAATC
GCAAATCTAATTTATCTTTCTTTNCTGAGGCCAACTCAGGAAATGAAAGGGCGATTCTT
ATTTNACTGGNGGTACNTTTGNGGTGTGTCTGCACCTGCAGANGCAGGCTTTAAAGCT
TCANCAGNCATTAATGGCANGCTGGCCNTTAACCTT

[illegible]

TABLE 1

390/467

TTNNAAAAAAANTTTNAANGGGGG
AAAAAANNGGNAAAAANTTNNGGGGNNNGGNTTNAAAAAAANCCCCNNNNNCNN
AAAAAANNGGNCCCCCGGGGGGGNNNAANTTNAAAAAANTTTNTNCCCCCCCCC
CCCCGGGGGGGGGNCCCCCCCCNNNTTTTTNNNNNTTNANNGGGGGGAAAAANNNCCC
NGGGGGAAAAAANNAAAAAATTTTTCCGGGGGAAAAANNTTCCCCCCCCAAAAA
TCCCCAAAAAANNGGNNGGGGNAAAAAANAAAAACNGGGGGNCCCAAAGGGGGG
CCANCCNAAANTTTGGGGGGGNNNNNACGCCCTTTTAAANNANAAAAACNTNNGCC
CCNTTTAAAAAAAACCCCCCCCCCGGGGGNNGGGGGTTTCCNAAAGGGCCCCCTTC
CCCTTCAAAAAAAGGGGGAGNGNNNGGGGGGGGGGGGGGGGGTTTTTTCC
AANANAAGGGGGGNTANTNTTACCAAAAAAANGGGGGAACCCNCAAAAAAATTT
TNNAAAAAGGCCNAANGGCCAANCCNAAAAAGGGCNGGGGGNNGGGGTTTAAANAAA
GNCCCCCCCCCGNGANAAAAA

Sequence 2364

CCGCGGTGGCGGCCCGAGGTCTTCGACCCACGCGTCCGCACTGAGTGTTACCATAATTT
GAGATTCTTGGCATGTAACTTTTCATTATGGAATATTGAATAATTTCAATATTATTCAT
ACATTTCTTTATGTTCAAACATACAAAAATAGAATAATGAAGTCTACCCATCACCAG
CTGCAACAAATATCAATACTTTACCGTTCTTAATACATCTAACCCCTTACTTTTTGTTG
TTTCTTTGGTGAAGTATTTAATTGTAATTTTTTTAAGAGACAGGATCTCACTCTGTC
ACCCAGGCCAGAGTGCAGTGGTACCTGCCCG

Sequence 2365

CGCACTTTTTTTTTTTTTTTTTAATAACAAACACTTATCCAACACTTAGTATGTGGCA
GGCACTGTTTCAAGCACTTTACACATACAACTCATCCCGGACGCNTGGGTNNAAGCTNG
TNCACCNA

Sequence 2366

CCGCGGTGGCGGCCCGAGGTCAAGCTTCGACCCACGCGTCCGGATTATTTAGCTCTTGA
CCTGTCCCCTCTGGCTGCCTCTGAGTCTGAATCTCCCAAAGAGAGAAACCAATTTCTAAG
AGGACTGGATTGCAGAAGACTCGGGGACAACATTTGTCCAAGATCTTAAATGTTATATTG
ATAACCATGCTCAGCAATGAGCTATTAGATTCATTTTGGGAAATCTCCATAATTTCAATT
TGTAACCTTTGTTAAGACCTGTCTACATTGTTATATGTGTGTGACTTGAGTAATGTTATC
AACGTTTTTGTAATATTTACTATGTTTTCTATTAGCTAAATCCAACAATTTTGTAAC
TGCCCGGGCGGCCCGGCCCGGGCAGGTACCCTAATAAAGGCAGCAAAATGCATTAATC
CACTATGAATGGAGTTTTACATTTAATTTATGCCTAATATTTATAAAGAATTTCAATC
ATAGGCTACTCACAGTTGTTATCTGACGCTTACAGAAGTGGTAAACAACCAATTGCTAGT
TCAAGTAGTTTCTCATGACATCTAATGGTAAGCAAAAATTAGTATGCATATTTCAACAT
CCCAGTNACCAATCTTTTAAATGGA

Sequence 2367

CGAGGTGTCAAGCTTCGACCCACGCGTCCCGACTTTTTGTCTTAGACCCAGTTAGGGTCA
CCTTACAGTGCAGGTGAAAGAAAGCAGGACTGCTGAGAGGAGCTCAGGACCCATTTTCC
AGGACTATTGCTTCTCAAACTTTGGAGAGCAGGAAAATAGATTCCCAAGTGAAAGAGGT
GGCAGAANTAAAAAAGT

Sequence 2368

CGCCCGGCAGGTACACAGTTCTGACTGCAATACCTTTTTCAGACTGCAAAGGGAGCTCAG
GATCCAGAAGTCATTAAGAAGACGGACGCGTGGGTGCAAGCTTGACCT

Sequence 2369

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTCAAGCTTCGACCCACGCGT
CCGCAGAAATACTGAAAGACTTTTGCCCTAAAGTGGCATTATTGACTGCTGGTGTGATGCT
ACTGTAATGTGATAAATTATTAATTGTTGCAAGTGCAAAAAAAGTGA
CCTGCCGCGGC

Sequence 2370

CGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAAAAAGCCTCATTATCCTG
TAGTCCATTTTGAAAGTAAAGCCCAAGAAAGCAAAAGATGAAGGTTCTAAAGCTAGTTT

TABLE 1
391/467

GACTGACCTCAGAGTCCTCGGCCGCTCTAG

Sequence 2371

TTCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGNGAGCACANAGATGA
ATAATANCAATAGGTTACANAAAAAGATGAATTGATTGAGAGAAAAAGA

Sequence 2372

CGAGGTACCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTGAGGAAAAAGAAG
GTCCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAAGTTGCAAGAATCAGAATGGCAT
TGGACTTCTCAGCTTTCCTCATTAGAAGTTAGATCTGAAGCAATCTTTAAACTCGTGAGG
AAAATTAAGTCTAATAAATAATTTTCTTCTAGCCAAACAATCAAATGTGAAGCTAGAAT
AAGCATTTTCAGGTAAAAAAGTGCAGGCGGCCGCCGCCGCCGCCGCCGAGGTACA
TAATATACAGAGGTATAATCTGTAAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGA
AAAGGAGTAGAATGCTTGTATGTGACTAAAATTATGTTGGTATCAGTTTAAATATATTA
TTATAACTTTAGAATGCTATACCCATTCCACAGTAATTCCCATAGTAACCAAAAAGAAA
ATATCTGTAGGATCACACAAAAGAAAATCAGAAGTAGATGCAAACCTTGCTACTACAGGAA
AAAAAAA

Sequence 2373

CGAGGTGTACAAGCTTCGACCCACGCGTCCGAAGAAGGCTCTCCTCTGTTCCAGGAGAAG
GAAGGGACAGATGAGAAGTCACTTCAAGTTCCCAGAATACTCAGGAGCTGAACCTGTCAA
GGTTTAGATGTGGCAAAGCAGGCCAGGCATGGTGAATCATGCATGTAATCCCAGCATTTT
GGGAGGCCAAGGCAGGAGGATCACTTGAGCCCAGGAGTTTGAAAGCAGCCCGGGCAACAT
AGTGAACCTCATCTCTAGAAAAAATACAAAAAATTAGCCAGGCGTGTGGTGTACCTG
CCCG

Sequence 2374

CGCGGTGGCGGCCCGAGGTACATCTGCAAGCTTTAAAGCAGTAGGTTCCAGACTTCCTGGA
AGAACTGACACTTGAAGCTGACTAGGGNCTACTTGANCNCATACTCACTTTGGCTAAGCC
ACAGTATGAGGGAAGGTGTGAGGAATAACNCTTCCATTTTATNTTGTTCATTCCCGAA
AATCCAACAGGAGATTCTTTCACTCCCTAAAATNAACTGNTCTGTGTATAAAGCATATC
TGGATATCTTGATCTTAAATGGAATGGTATNTGAAANNGCNCNACTTTTCTAAACT
TTAAATTTGGCCCTTTTTTATTTTTAGCCCTGGGGGAGGAGGGAGGGAATGATTCCCAAA
AAACTGACTGTTTTCTTGTGCGTGTATTAATTACTGGTGATTATTTTTGGGGGGGG
NAATTTAGCNGGAAAAAATTTTTTTTTCAGGGTTAAACGCGCCTNNTAAAAANTTGGGA
AATGNGCNGNAAAAGGGGGCCCTTTTTTCCCCCGCGNTTTGGGGGNAACCCCGCCCGG
TTTGAANGGTNAAACNCCCTTTNAAAAANAAAAAATTTGNTTCAAGGTTTTTTTTTCC
AAAACCGAAAAATTTGGGAAGGTCTTTTTATATAAANCTTGGAAACCCGCCCCGGGGTC
AAAACCCCGCGNNNGCCGTTTTAAAAAATGGTACCCCGCCNTCCGNTTTCANAATT
AACTTTTTTNNCCCNCTGGGGGGGGCC

Sequence 2375

CTACTATAGGGCGAATTGGGAGCTCCCCGCGGTGGGCGGCCCGAGGTCTTCGACCCACGC
GTCCCGAGAATAGCTACTGAAGTCCTAAAGAGCAAGCCTAACTCAAGCCATTGGCACACA
GGCATTAGACAGAAAGCTGGAAGTTGAAATGGTGGAGTCCAACCTGCCTGGCCAGCTTAA
TGGTTCTGTCTGGTAACGTTTTATCCATGGATGACTTGCTTGGGTAAGGACATGAAGAC
AGTTCCTGTACATACCTTTTAAAGGTATGGAGAGTCGGCTTGACTACACTGTGTGGAGCAA
GTTTTAAAGAAGCAAAGGACTCAGAATTCATGATTGAAGAAATGCAGGCAGACCTGTTAT
CCTAACTAGGGTTTTTACCTGCCCGGGCGGCCGCGCCCGGGCAGGTACCAACACAA
ACTATTCAATAAAGTAATCTGCTTTAAAAATAAACACACTGAAAGGCCAGGCAGGTGG
ATCACCTGACATCATTAGTTCAAGACCAAGTGTGGCCAACTGGTGAAATAGTCTCGAC
TAAAAATACAAACATTAGCTGGGCGTGGTGGCAGGCGCCTNTAATCACTACTCAGGAGG
ATGAGGCAGGAGAATCACTTGAAGCCAGGAGGTGGAAATTCAGTGAGCTNAAATCGTCC
ATTGCACTTGAACCTGGCAACAAAATGGGGACTCCGTTNAAAAACCCCCCCCCA

Sequence 2376

CCGCGGTGGCGGCCGAGGTATCACGAGCGGCCGCGGCCCGGGCAGGTCAATCATAGAGC

TABLE 1

392/467

TGCCCCAACATCTAGACAGTCTCTCCTACTGATTATAAATGAGTGAAAACCTATCAGTTAG
AAAAATCTAATTTAAGTTGTTAATACATGTTTCTTTGGTGAGCACCTGGATATATTTATC
ACAAATTCCTTTATACAAATGTCGAAAATGGCTTTCAACAAACCTAAGTGTCTAATTAC
ATGCCACTTTTAAGCATCNNTTTAAGGGTAACCAAAAATGGAAACCCTTATTTTNAATTA
AAATTTNGGGNCCCGGGTNTTAAANNACTNTGGCCNTTTTNAATNTGGGGNCC
CCCCGNGNGGGGNAATTTTTTATATAAATTTTTTTNCCCCCCCCCCCCCTGGGGG
GGGNGCCCCCCCCCNTTTTTTTTTTTTTTTTTNNGGGGGGANNAAACTCNNCNCG
GGGGATAANANANGGATAATNTTTTTTNTTNGGAAATNTTTTTTTTTN

Sequence 2377

GCGAATTGGAGCTCNCOCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTAAAG
CACTGGTGCTCTTCTTAAGTGAATGTTAACACAGGGCTCAATACATAAAAGAGAAAGTG
AAGTTGTTCCATTTGGGGGGTCCCATAGGGGCCTCATGTTCCCTAGGTGTTACCCCTT
CAGACACAGCACATGCCTACAAAGNGGACNCGTGGGGTCAAGCACCTGCCCG

Sequence 2378

CTATAGGGCGAATTGGAGCTCCCCGCGCGCGCGCGGAGGTCAAGCTTCGACCCACGCGT
CCGGTCTATTTGATTNTGGGGGTNATCAGCATTATTCTTCAGAAGGGGACCTGTTTTT
TTCAAGGGAAGAAACACTCTTATCCCAAACACAGAATAATGTGTNAAACATGCTAAAT
AGTTCTATCAGGAAAAACAACTGTNTTATCTCCGNAGGCTATTTGNTCAGAGAGGC
CTTTGNTTAAATATAAATGTTTAAATATAAATGTTTGTCTGGATTGGCTATAACATGTC
TTTCAGCATTAGGCTTTTAAGAAACACAGGGTNTTGTATTCTTTACTAAAGATATCAGA
GCTNTTAATGTTGNTTANATGAGGGNGANTGTNAAGTACCTGCCCGGGCGCGCGGCCGCC
CGGNCAGGTCTTNGACCCACGCGTNCGGGCNATTATCAAAACACTTGGAAAAAGATTTT
TATTCCTACTTTTAAACATACATCAAAATCTAAAAATAAACTA

Sequence 2379

CCGGGCAGGTCTTCGACCCACGCGTCCGATTGAAGCCTCTCTGAAGTTAAACCCAACTAT
GTTTATTAAATGTGTGAAACTGAAAGTGGGCTAGGTTCTACCAAGGCTGTGGAACCTCTC
CTACGAGTTCTGCTGATCAGGAAATTTAAGAATTTATCTTAAAAATGCAAGGAAAAAAGA
CTGCCTTGGCAATTGTGAATGCTGCTTTCAATCTCCTAGCACCGAGCCTGGCACTTAGGC
AGCTTTAGTAAGTGGGTGAATGAATGACTGAATGAATGAATGAATGGCTCAGCTGAGGA
ATGTAACCTTGGTCAAGACCT

Sequence 2380

CCCCGGCGGGTTGGGCCGGGCCCCGCCCCGGGGCCCCGGGTACCATTAAATTATTACCAG
GAGGTTNTTAATTCTGGTTAACCATTCATTAATTGNTNAAAAGGTGGGGGGNAANGGG
CCAAAGGGTGGGGAA

Sequence 2381

TGGGAGCTCCACCGCGGGTGGGGNCCCGGGGGNCCCNCCCGGGNNNNNAAAANAANGGG
GGGNNTTTTTNNNNNAAAAACCCCTTTTTNNNNNNCCCNNTTTTTTTNGGGAGTTG
GGCCCCCTTGAAAAGTTTGGGAACCCCCCCCCCAANTTTTCCCTTTAATTGGGAAAAT
TTTTGGGTTTTTAAATTTTTAAAAAGGGGTTNGGGCCCCCAAAAAAAAAAAAAAAAAA
AATTTTTAAATTTTTAAATTTTTAAAAAAGGGGCCTTTTTGGGGGNTTTTTTTTTTTT
TTTGGGGAAAAAAA

Sequence 2382

AAACTTTTTATTAATGCTTANGANACAGATTGACTTTCTTCGCAAATGACTGTTTTA
CTTTTCTGAAGNAGGACATATGCACTCTGATAAACTGCATTACAGCCTGCAGGACA
CCTTGGGCCAGCTTGGTTTTACTCTAGATTTCACTGGCGTCCCACCCCACTTCTCCACC
CCACTTTTTCTTCACCAACATGCAAGTTCTTTCTTCCCTGCCAGCCAGATAGATAGAC
ACGGACGCGTGGGTCNAAGCTTGACCTGCCCGGGCGGNCGCTCTAGAACTAGAGGATCC
C

Sequence 2383

AGGTGCGGCCCGGCCCGGGCAGGTACAAGCTTCGACCCACGCGTCCGCACAAACATTT
TTTCAATGTAGCAAAATCAAACCTTAAAAAAAAAAAAAGAAGAAAAGAAGATGCCGAC

TABLE 1

393/467

AGTGCGGAGTCTAGCCTTTTGTAAACTTCATATTGCACACTAGGACTATAAGCCATTGCT
AGCTCATTTTGAATTTTAACGTGTAATTTTGTATTTTCTTTCTGTGGGAAACAAT
GCTTGATCCACCAATGCTCTTTTAATGTTTTATAACTATGTATGTGTATATATATAAT
ATCAAATAATATGTATGCACATATGTGTGTGTATATATCTATATGTATATACATA

Sequence 2384

TGGAGCTCCACCGCGGTGGCCCCGGGCAGGTCGAGCGACCGCACTTTTTTTTTTTTTT
TTTACCTGAAAATGCTTATTCTAGCTTCACATTTGATTGTTTGGCTAAGAAGAAAATTAT
TTATTAGACTTAATTTTCCTCACGAGTTAAAGATTGCTTCAGATCTTAACTTCTAATG
AGGAAAGCTGAGAAGTCCAATGCCATTCTGATTCTTGCAACTTACAAGTAGTCTTTTTT
GTCTAGACGCTTTCAGGACCTTCTTTTTTCTCAGTCAGTGTATCCAAACCTTCACAGTG
ATATCTTTTGGGTACCTCGGCCGCTCTAGAACTAGTGGGATCCCCGGGCTGCAGG

Sequence 2385

AGGTACTCATAGCATTTTTCCCCACATAGTCTTTCAAAATCTGCATTTATTTCAAAATCT
GACCTTCATAACTCAACTATACATGAATTGCTGGTATTGTCTTTAACTTGGCCAAAGAA
CAGTTTTCTGAGTTAGCTATTATTTCCACCATAAAATTGGGGTAAGATTTGGCAAAAAA
AAAAAAAAAAAAAGTGCGGCCGCTCTAGAACTAGTG

Sequence 2386

AGGTACTACCCATTTTAATTACACAGTAAACAGAAGCACGGGTAAGTGACATACTCATAC
TTTAAGCAATAAGAATTAGAAGAAACCATAGAAGCTTGGGGCCTTCTCTCTAGCTCTAAC
CCAAAGAAAATGAATTTTATTTTTTTTTTTTAAAGAAAACAGCATCAATCACTTAAGAT
TTTCTTCTCTTTTTTTTTTTTTTTTACACTTGCTTATTAGTATAGNATCTCGTTCCAA
AGCCCGGACGCGTGGGTCAAGCTTGACACCTGCCCG

Sequence 2387

AATTGGAGCCTCCACCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCCACGCGT
CCGTCTTATTTTTACTCTTAGGCAATGCGGAATATCAATCCAGCACAGCAAATCTCC
AAAATGTCAGGTAGGCTCTTATCTGATGTTTTAGCACTGGAAAAAAAAAAAAAAAAAAAA
AAGTGCGGGCCGACCT

Sequence 2388

CGGCCGAGGTCTTCGACCCACGCGTCCGAAATGACTGGTTATTTAGAAAAGAAGGATGTT
TAGAATAAAACAGGAAGTCCAAACATGTCATAAGTGGTTTGTGTATGTCATAATAAGGGA
TTATAAAAAGAGGATTTATGTGAAAAAATTTTATGTGATCAAGTTGTCTACAATTACAA
GGAAATTATTTATAATAGACGTTCTAGAGATCTATTTAAAAAAAAAAAAAAAAAAAAAA
CCTGCCCGGG

Sequence 2389

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCC
ACGCGTCCGTCTGAACCTACACCCCGTCTCTTCACGGTTTAGACTTACTAAAAATAATAC
AAGGTGATTTTCATCTTCAGGTAGAGTGAAGCCTTTTAATTAAGGCGTCACAGGTGCAGC
TATTCTACCTTAATGAAATGGGTAGTGATTTTCCACCATTATTTATTTCCGGTGATAATA
TGCTGCATATTCAAGTCTCTTGATGTTATTTTCACCCAAAGTAGTTGACAATTTGATGCT
TCTGGTGATGTTTATGGCTTCATTTTATGTAATTTTTTAAGTAAGTCCACTAGAAACAG
TTCATCTTATACCTTCAAAA

Sequence 2390

AGGTACTATAAGAACACATTAATTCAATGGAAATACACTTTGCTAATATTTTAATGGTAT
AGATCTGCTAATGAATTCTCTTAAAAACATACTGTATTCTGTTGCTGTGTGTTTCATTTT
AAATTGAGCATTAAAGGGAATGCAGCATTTAAATCAGAACTCTGCCAATGCTTTTATCTAG
AGGCGTGTTTGCCATTTTGTCTTATATGAAATTTCTGNCCCAAGAAAGGCAGGATTACA
TCTTTTTTTTTTTTAGCAGTTTGAGTTGGNGTAGGGGTATTCTTGGGTTATCAGAATAC
TCATATAGCTTTGGGATTTTGA

Sequence 2391

GTTCGTATTTCTTATTCTACAACAAGGGTCAGCCTACAGGCAAAACACATCCCATTGTCA
TTTTTTGTAAATAAAGTTGTATTGGAACATGGCCACTCTCATTTGNTTCTATTATTTA

TABLE 1
394/467

TGGCTGCTTTCACTTACAACCTGAGTGGNTGCCACAGAACTGTATGGGCCTGCAAAGTC
TAAAATATTTACTATGTAGCTTTTTCTTTCTTTTGGAGACAGTNTGCCACTCTATTGC
CCAGGCTGGGAGTGCGGTGGTGTGATCATGGGCTCATTGCAGCCTCAAACTCCTGGGCT
NAAGCAATCCTCCCGCTCGGTCTCCAAGTAGTTGGGACTACAGGCATGA

Sequence 2392

CCGGGCAGGTACCCAGTAATCACATAAATTCTGCAATCATCTGTTTATTTAGCTTAACTG
TTTTTTTTTATTTGNTGAAGNTGTTGTTGTTATTTAGNCTTTTTCTTATTGGG

Sequence 2393

ACCGCGGTGGCGGNCGCCCGGNCAGGTCTAGCTTAGTCGACCCACGCGTCCGGGCTTAAC
TAATATTTGNNTGNGTGCTACTAACAGGATTATAATAAATTTGTCATCAGTGAAAAAAA
AAAAAAAAAAAAAGTGCGGNCAGTCTANNACTAGTGGGAT

Sequence 2394

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGATTTAGGTTGACTTTTCTCACCTTTAA
CCTCTTTATATAGCACAGTGCAATCTGGCCCTACTGCCACTTCATCTGGGTTATCTGTAG
CTTGAGTTGTAAAAAAGT

Sequence 2395

AGGTACTGTTGTCTCATGTAATGCTAAAACTGAAATGGTCCGTGTTTGCATTGTAAAAA
TGATGTGTGAAATAGAATGAGTGCTATGGTGTGAAAACTGCAGTGTCCGTTATGAGTGC
CAAAAATCTGTCTTGAAGGCAGCTACACTTTGAAGTGGTCTTTGAATACTTTAATAAAT
TTATTTTGATAAATAATTTGAAAAAAGTGGCCTCGAGCGGCCGCC
CGGGCAGGTACAGGCACCTATAGAATTTAAAGGGGAGATTTCTTTATTTGTATTCAATG
TATTAATAAGATTTTAAACATATTTGGAGAAATTGCTAAT

Sequence 2396

AGGTCTAGCTTGAGTCGACCCACGCGTCCGATTTTTGCCTCCAGACTACAGATCAGAAA
ACTGAGACTCAGAATGTTTCAATTCCTTGTTAAGATCACAAAAGTATTTGAGGTATAA
TGGAACTGAAAAAANGT

Sequence 2397

AGGTCAAGCTTCGACCCACGCGTNCGGAAAGTNTTCATTCTCCCTCTTTTTTTTTTTTT
TTAGCAATTCAGNCATGTTTTGNCTACAAGTTTTCCAGTATTGTATAGATAAATAAT
AATTTACNAGGCTGCCTTTGAGTATACTTAGACAAGAGACCTGCCCGGGCGGCCGNTCTA
GNACTNGGTGGANCCCCGGGCTGCCAGGNATTTCAATATNAAGNCTTATTNGTTACCGN
GCGACCTACGAGGGGGGGG

Sequence 2398

CGGCCGCCCGGGCAGGTATCAAGTGCTTGGATTCTGAACTGNCAAAAGAAAAGTGCATT
GCCCTCTGAAGTAAAAACCGAAATGAGNTTCTTAGGCAAATGTATTCATCAGCCAGAT
AAAAAAAAAACCANNTAATGNGAGCCNTTAGTCACTGCT

Sequence 2399

AGGTACAAGCTTCGACCCACGCGTCCGATACGACTCACTATAGGGATCTACCTGCTTGAG
TCGACCCACGCGTCCGAACACATACAAAAGAATTAACCCACAAGCTGCCTCTGACAGCA
GCCTGTGAGGGAGTGAGAACACCTGGCCGGGTCAACCCTGTGACCCTCTCACTTTGGTTG
GAACTTTAGGGGGTGGGAGGGGGCGTTGGATTTAAAAATGCCAAACTTACCTATAAAT
AAGAAGAGTTTTTATTACA

Sequence 2400

AGGTGGCCGCACTTTTTTTTTTTTTTTTTTAAAGTTTGGGGTCTGTCAGGAGACAGA
GGCTTTTTGAATTCAGTGTGAAGAGAAGAACCCGAACCTTAAGACGGCAGATCCCTGAG
AGTCTTTCTGGCTGGTTTGAGCGGACGCGTGGGTCGACACCTGCCCG

Sequence 2401

AGGTACTTCAAAGTTATTTGCACATACACTTGTACTTTGNATGTTTTGCAGGATTAAA
CTTTGTATAATCTTTTGCAAAATTTTTTTTTCAGTATGCAANGCTTGCAAGATGAAAT
TAAACC

Sequence 2402

ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGGNGGGGAGGAAGGCAAGGCACCTGGGA
AAGACTNACAACANATATTGACCCTAGTCGTAAAGAAATCCATAATTGCCAGTAACACGA
CNTATTTAAGAACAGGAAAAGACNGACAAGGAAAAGAGGGACTTTTTTTAAAAAACATTA

TABLE 1
396/467

CTAAAGAATTNGGACATAANAAGAGTGAAATTGACAAGGAAAGGAGGAGGGGGA

Sequence 2411

GAGCTCCACCGCGGTGGCTGGCCGCCCGGGCAGGTACATAATATACAGAGGTATAATCTG
TAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGAAGGAGTAGAATGCTTGTATG
TGACTAAAATTATGTTGGTATCAGTTTAAAATATATTATTATAACTTTAGAATGCTATAC
CCATTCCCACAGTAATTCCCATAGNAACCAAAAAGAAAATATCTTGTNGNATACACACAA
AAGAAAATCAGAAGTAGATGCAAACTTGTCACTACAGGAAAAAAAAGCTATCAAATAG
AAACAATNATGGNGAAAAATAAGACA

Sequence 2412

CCGGGCAGGTGCCGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTATGGAAAAATATT
GTGATTATTTTAATAGATTTACGGTATAAAAGAAAACTTTTATGATNCAATTTGACA
GACTACTTTCATAAAAAATTTACTNTACATACAATGTATTGCAAATTTTNGGCAAC

Sequence 2413

NGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGATTTT
GTGAGAATGATTGTTCTTTCACTTGGGCTGTTTGAGAGCATAATTATGGTAATCATGAGA
TTAATGTTTCATGATTTCTACCTCCAAAGTGTGAAGACAAGTNAAACAATGNTTCTAAAT
TGTCTTATTTGTTGGCGGAGAAGATTACAATGGGCTATTAGTGCTACATTTGGTCAAAT
GTAATCACTTAAATAGCTTCTTGTACCTTAACTAAAGCAGAATAAAAAACCCTGCCCC
GGGGCGGCCGCGNCCCGCCCCGGGCAGGTACCATTCCCGACGTTTGCAATGGTGGGAGTTG
GCAGGTGTG

Sequence 2414

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCG
TCCGCTTCTCTTAGAATTTTGGGGAAATTGATAGTCCAGTGACTCCTACCCACTTTTGGG
TGAAGGACGATTTGGAATTTTGAAGTGTGGGGAGACAGGCCTGTGAAGTCCGAANGACTC
ACTTGGGGT

Sequence 2415

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGAAAAAAGTTTGTGGAGA
CCGACTGGGGGTGAGGGGCTGGCAGCAGGAGACAGATAACANGTTCNCTCAGAATGCAGA
GT

Sequence 2416

ANGTTTTTTTTTTTTTTCANTGCTTCCCAAAGCTGCGGACATAAGGGTAGCTGANCTG
GACTCTGNCCCTTGCTGAAGACTTGGAGATGTCTGAAGTCATAACTGGGGNGACCTCCTTG
GTCCAAATGTGCTGCCCCCTATGAATCCACATCAGGAGTTGTAGGAGATGAGGTTAGA
GGGATGCTTGGGCTCATCTGGCTTCTTCAGCATAGCCCGGACGCGTGGTCTGAAGCTTG
ACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTTTTT

Sequence 2417

CCGGGCAGGTTTTCTTATGAGTGGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGAGT
GGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGAGTGGGAGGTGACTGATCGTGGAGG
TGGATTTCTTATGATTGGCTTATCACCATCCCTCCTTGGTGCTGTTTTGCAACAGTGAG
TGATTTCTTGTGAGATCCGGTTGTTTAAATCCAGAGGCACCTNCCCCTACCCCTAGCTC
CCATTCCTGCCATGTAAGACACCTGCTCCCCCTTTTCTTACCCCATGATTGGAAGCTTT
CTGAGGCCTCCCCAGAAGCTGATGCCAGCCCTATGCTTNCT

Sequence 2418

CCGGGCAGGTCTTCGACCCACGCGTCCGCACATTTTGATGGTCAGTCAATAACTTAAGCA
GNTACCAAAATACTAGGTATCCAAGGAGCGAGAGGTGGGCGGAGCATAAGAAACACATTT
CTNATGGCAGCTCTGCCAAAGCCCTGCAGAATCATTTACACATAGGTCTTTGGTTAGT
AGCCCCGTGGCAGAGAANTCTGATCTTAAACAAATATTGTCTATAATCAAGTAGAGCAATG
CAATTAATAAAAAAAGCACAGGNTTTTGGGGCCATNGCTGAAATCCCAGCCTTGCTA
TTTTGCTTGGCTGNGTGACCGGGGTTTCT

Sequence 2419

AGGTGTACAAGCTTCGACCCACGCGTCCGGGATGAGTTTGTATGTGTAAAGTGCTTGAAA

TABLE 1
397/467

CAGTGCCTGCCACATACTAAGTGTGGATAAGTGTGTTATTAAAAAAAAAAAAAAAAAA
AAAGTTGCGGCNCGCCGCCCGGNCAGGTACTGGCGTGGATTCTGCATANTGGNGATCAC
ACGTTCCACCTCATCCTCAGTGAGTTCTCCCGCCCTCTTGGAGAGGTCAATGTATGCTTT
CNCTCAACACCACATGAGCATATCTTCGGCCACACCCTTAATGGGCAGTGATGGCAA
GGCTATTTTCCGCCG

Sequence 2420

AGGTATTCAACAAGGGCCCTGAGAGAGGGACAGGCAGCCCCTGTGAATCTTGCTGTTCAG
CANAGACAGGANTCAGCACGTGTGAGGGCAGCAGGGAAGTCTTCCTGGAGGAGTGAGACC
TGGCGATGAGGAGGCACGGCAGGGAGGTGGAACAGGCAGGAGAGACTCTTCANGAATTGA
GGAGATAGAATAGAGGACACTAAAGCCTTAGAGAGGCCAGGGGTGGTGGCTTGGCAGGAN
CATCGCTTGAGGCTAGGAGTTTAAAGCAAGCCTGGGCAACATATCCGAGACCCCATCT
CTAAACACAAAAATAAAAAA

Sequence 2421

CCGGGCAGGTACCCAGTAATCACATAAATTCTGCAATCATCTGTTTATTTAGCTTAACTG
TTTTTTTATTNGTTGAAGNTGTTGTTGTNATTTTCAGTCTTTTTCTTATTGGGGTTGAC
CAGACTTGGGTAAATCTGTAAGAAAAGTNCCATAATTATGGGGGGAAGATTTCTCTTG
AATTGGCTTAAATNCCTGTTAGCTGAAAAAAAAAAAAAAAAAAAAA

Sequence 2422

CCGGGCAGGTCTTNGACCCACGCGTCCGAGCAAAATTCAACTAAAAATACAATCTGGATT
CCATAGCCAAGGGTTTTATTTACAATNTCCTAGTAGGAAGTCTTTATTTAGCTTTCAAT
GTGTTGAACTTATAAGGAAATTTAACGTATACATGAGTATTATTTATGGAATGTGAAG
ATATACAGAATGGAAATGGAAAATAATGTTAATTCGTATTGACTTTGAGGAATCTTANAA
TCATGTAGCCCTGTTGCAACAAGAAATAGGGAACCTTCTGAA

Sequence 2423

AGGTCAAGCTTCGACCCACGCGTCCGGTTTTGTTTTTTCTTACGGCAACTCAAAGCAAAG
AGCTGGAGGAGCCAGCCATTATAATTGCTTACTCTCATCGCTTAGCGCCCCAGGTGGGAT
GTGTTTCCAAAACACATTTTGTATTTATAAGGAAATGTAGTTAGGATTAATTTTATTGT
CCTAATTAGAACTCACATTTTGGTTAAATCCTCAATTCATTAAAAAAAAAAAAAAAAAAAA
AAGTGCGGCCGCGCTCGACCTCGGC

Sequence 2424

AGGTGCTTCGACCCACGCGTCCGACTTAATTGAGAAGGTGGAATCCTCCTATCCCTGAAC
TCGGGGGAATGGAATCTCGCTGATCTTCAGGACTAGCTCCCTGATCATTCCAGCCCCTC
TGAACAACAGGGCCCCTGGAGATAGAAGTAGTCCTATTTACCCCCAACTACAACATTAAT
GGGAAAAAAGAAGCAGGAATTCCTGAATTTTATGACTATGACGTTGCCCTGATCAAGCTC
AAGAATAAGCTGAAATATGGCCAGACTATCAGGCCCATTTGTCTCCCCTGCACCGAGGGA
ACAACCTGAGCTTTGAGGCTTCCTCCAACCTACCACTTGCCAGCA

Sequence 2425

AGGTACAACCTTCTCTTTTTGGAGTTTTACTTGCTTCTATCAAGAAAGACAATTTTCCTG
TTTCCATGACGTTGGAGTTTGGCTCACTTCCAACAGGGAAAAGGAGTGTTTTTTTTTGT
TTGTTTTGTTTTCTGCTTCTTGAATGGTAGAGAGCAGTCTATAGCCAGAGACTCGTCC
CTAGGTAAGTAACTGAATTGGGGTTTGTCTTGGTTAAAGTTAAGATTAACGACCAACTGG
TCTTAATTTCTCCTTACCATTAGAGCACTCAGTTATCATATAAATTGCGCCATTGTTGT
TTTGCCTAA

Sequence 2426

AGGTCAACCGCCAGGGTCAAACGGAACACAACCCACTCTCAGGAAGACATCCCTAACACA
AATCCAGGGACTTTGTTTCTTAACCTTAAATTTGAAACACTTCTTGCTACCGGGATGG
GGGGTGGGGCTCAGCAGTTTGGGGAAACGGAGTGGGAGTCTTTTGCTGAACCGGACGCGT
GGGTGCAAGCTGGACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTTTGGAG
AGTGGCTATTTCAATTAANATTTAATAGTTTTTTTTTGGACTAAGTAGTGAAAACTTTTA
TACTTAACTGAGACATTTGTCAAGGCTAAAAAAAGT

Sequence 2427

TABLE 1

398/467

AGGTACATCCCACTATTTCTTTCTTTTAGCTAGAAAGGTATAACGTTAAAACCCCTTTTA
CCAAATAAAATGATTTTATTTAGAAAATGCCGGGCACTAAAAAAAAAAAAAAAAAAAAA
AAGTAC

Sequence 2428

CCGCGGTGGCGGCCGAGGTACCTATTTTGTATATGTGAGATGTTTAAATAAATTGTGAAA
AAAATGAAATAAAGCATGTTTGGTTTTCCAAAAAAAAAAAAAAAAAAAAAGTGCGGCCGGC
CGCTACCTGCCCGGGCT

Sequence 2429

AGGACAATGCTGTAGATAATGCAGCCCATGCAATACACCCAAGAACTAGAGTCCTACA
CCCAAGTACAATATGATAAGCAGCCCTCTGCAAGTGGTGTGCTGGATACCACTAAGAAGTC
TACTGCAGCCATGTTGGTTATGATTTTCCATGCAGAAAGGTACAGTTAGTTCATATTTAT
GTATTGCACATAATCATGCTATTGAGCATTGATGCTATATTGTATTATGTAAATAATAAA
AGCCATGTACAGAGGGAAAAAAAAAAAAAAAAAAAAA

Sequence 2430

CCGCGGTGGCGGCCGAGGTATTCGACCCACGCGTCCGTAGTTTTTATCTTTGACCAACCG
AACATGACCAAAACCAAAAGTGCAATCAACCTTACCAAAAAAAAAAAAAAAAAAAAAA
AGTGCGGCCGNTCTAGAACTAGTTGGATCCCCCGGGCTGGAGGAATTC

Sequence 2431

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTGAGTCGACCCACGCG
TCCGAGTCAAGAGAACAGCACATTAGTTCCAGAAGAAAGATGGAAATTCTGAAAACCTGAA
TGTCAAGAAAAGGAGTCAAGAACAAATTCACAGTATGAGAAGAAAAATGGAAAAAAACT
TTATTTAAAAAAGAAAAAGTCCAGATTGTAGTTATACTTTTGCTTGTTTTTCAGTTTCC

Sequence 2432

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCTGTTGCTATTTCTTATTCT
ACAACAAGGGTCAGCCTACAGGCAAAACACATCCCATTGTCTTTTTTTGTAAATAAAGT
TGTATTGGAACATGGCCACTCTCATTTGTTTTCTATTATTTATGGCTGCTTTCACCTACA
ACCTGAGTGGTTGCCGCAGAACTGTATGGCCTGCAAAGTCTAAAATATTTACTATGTAG
CTTTTTCTTTCTTTTGGAGACAGTGTGCCACTCTATTGCCAGGCTGGAGTGCGGTGG
TGTGATCATGGCTCATTGCAGCCTCAAACCTCTGGGCTCAAGCAATNCTCCCGCCTTGGT
CTNCCAAGTAGTTNNGGACTACAGGGCATGAGCCCNCCATACCCCGGNTAATTTT

Sequence 2433

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGAAAATGTTTTCTTTTTT
AATTTAAGGTTTAAATTCCTTTGCCAAATCAAAAAAAAAAAAAAAAAAAAAAACGNT
NGCNTGCCNNGGCCGCGCGGCGNNCTTACTTTTTTTTTTTTTT

Sequence 2434

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTCTTGAGTCGACCCA
CGCGTCCGATAAAACACCGCCTTCAGTGTAATAATTTTACATGGTATCTGAACAACATTT
ATCCAGAGGTGTATGTGCCAGACCTTAATCCTGTTATATCTGGATACGTGAGTATTTTCC
TGTTCTTTTTTAATTAATATACTCCTTGCCACCAACCTTTATGTGGTTCTAAGAAAATT
GCTGAAATACTTTCTTTATTGCTTTTGAGATTTTACATTATAATCATTAACTTACTTTC
TAAATTATTTTAAAAATATATAAATCACATGGATTAAAAAATTTTCATAACTTGAAAT
TTTCTTTTAGATTAAAAGCGTTGGTCAGCCTCTATGTCTGGGATGTTGGAGAAAACAATC
AAGGAGGCAAACCATTAATTATGTATACATGTCATGGACTTGGGGGAAACCA

Sequence 2435

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTTTTTTTTTTTTTTTTTAAATG
GTTAAGCTACTCAAATTGTTTTCAGAGCCAGAGTAAAAACCAAAAAAATACTCATCAAT
ATCAATTGCCAAATTCAGTCTGAAAACATTTACACACAGCTTACCCAAGTATAAAGCTG
CTGGGGGGACTTCTGAAAANTTGGCAACATTCATTNNGGGGCTTNGAAATGCTTTACAAGG
GGAAGGNTTTTTTAANGCAGGGCTTACNTGGGTTTTCCCCCAAGGCCCTGGNNANGTTT
NCCNAAAATNAAAGGGGGGGGCCCCCCTNGNNGNGGGTTTTTCCCCNNCCNCCNNAN

TABLE 1

399/467

CATNANGGGGNGNGCCCCNCCNNTTTTTNTTTTTTAAAGGGGNAAANTTTTTNCGNGNN
TNTGAAAAAAGGGTTTTTTTAAACCCCGGGGGGGTTTTNTNTNNTTTTTTAAAAAATA
TTTTTAAAAAGGGGGGGGGGNGNTGGGNNTTTTTNTGGNGGGAAAAANNTNTNACACCCC
NNTAAAAANGGGGTTTTTNCNNATTTTTTTTTTNCNNCCCCAAAANANGGGGGGGGGG
GGGGGGG

Sequence 2436

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTCATTTTATTTTTAC
GTTGTTACGATATGGGAGTAGTGTGATTGAGGTGGAGTAGATTAGGCGTAGGTAGAAGT
AGAGGTTAAGGAGGGT

Sequence 2437

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGC
GTCCGGCCTGGGACAGATCCTTAGTCTTTCCTTGACTTTATGACCCAGAGGTGAAAGGC
CAATGTTTTGTAGAATGTCCTTAAACTTGGGTTTATCTGAGGTTTCCTTGTGATTGAAT
TCAGGTAGACATCTTTGATGGGACTGTCATAGAAGTATGCTGTGTTCTAATTGCATCT
TATCAGGTGACTTATGATTTCTGTTTGTCCATTATTGATGCTGTTACTTAGATCACTG
ATTAAGGTGGTGTCTGCCTGGCTTCTCCAGTGTGAAATTTCTTTCTTCTTTGTAATATT
TTGTGGGGGAAGTAACCTTAAGACTATGTAAGTGTTCATTTCTTTCTTTCTTTTGA

Sequence 2438

TACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCAC
GCGTCCGAAAGATTCTTGGCTGAGCATGGTGGCTCATGTCTGTCATCTCAGCAATTTGGG
AGGCAAGGGCAGGAGGATAGTTTGAGCCCATGAGTTTGAGACCAGCCTGGACAACATAGT
GAGACCCCATCTCAGCAAAAAAAAAAAAAAAAAAAAAAAAAANGTGCGGCCGGCCGC
CCGGGCAGGTACATGACTATATCAGGATTTCAAATTGAGGAAACCATTGACCGCGAGACT
TNTGGCAATTTANAGCAACT

Sequence 2439

CCGCGGTGGCGGCCGAGGTACCTATTAAGCTCATGAACCATAGAGGTATCTCGGTGGCCC
CTCATTACCATCTGCTGTTCTTTCAGCTGTTTAGCTACATCTTTGGCTGAGGAACCAGAC
ACTTCAATCCATGTCTTAGAGAAGAATGCACATGACCCCAACATGAAGATGATATAAACA
ACGACATGGACAG

Sequence 2440

TNCTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGCCGCACTTTTTTTTT
TTTTTTTTTGAAGTATGTTTATTATTTATTGTTTTTTGTTTATACATGTTAAGTTTCAA
CTTTCAATAATAAAATTCAATAAATTTGATTCCTTAATCATAAAAACTTGCTTTACA

Sequence 2441

CTATAGGGCGNTTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCC
ACGCGTCCGATAATTTATACTAAATTTAGTAAATGGACTTCTTATTCAAAGCATCAATA
ATTAAGAAGATTATTTAAAAAAAAAAAAAAAAAAGTGACCT

Sequence 2442

GGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGACAAGCTTCGACCCACGCGTCCGCTT
AATAGCAAAGGATAATTGAAATCCCAAACCTTACAAGGTTTTCAACAAAAGTGAAGTTTGC
TTAAAGTTAACAGTGAACATGTATTATGGTAACTTCTAATCTTGTGGCCTTAGACAGTC
TAGTCCAAAGGCATAAAGAAAGTTTGCTTTAAAAAAAAAAAAAAAAAGGAATGGTTATCTTCA
AAAAAAAAAAAAAAAAAGTGGGGGAGACAGAAATTTATGTAAGAGAGTGTTATATGGTAAAT
CTTGTCTGAAATAAACTAACTGGTGTTTAAAGAAAAAAAAAAAAAAAAAANGT

Sequence 2443

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTT
TTTTTACCTGAAAATGCTTATTCTAGCTTCACATTTGATTGTTTGGCTAAGAAGAAAAT
TATTTATTAGACTTAATTTTCTCACGAGTTTAAAGATTGCTTCAGATCTTAACTTCTA
ATGAGGGAAAGCTGAGAAGTCCAATGCCATTCTGATTTTGGCAACTTACAAGTAGTCTTT
TTTTNNNTAGACCTTTTTCAGGACCTTTTTTTTTTCTTAAGTCAGGGGGTTTNCAAAAC
CTTTCNAAAGGGGNTTTTTTTNGGGNNNCTGGGCCGTTTTTAAAAANTAGGGGGGAN

TABLE 1
400/467

CCCCCCCCGGGGNTGGGGGGGAATTTGATNTNAAAGTTTTNTNGATCCCCGCCCCCCTGG
GGGG

Sequence 2444

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTTTTTTGAAATGTTTGAAGTTAACTCATTTTATTTCTAGGATTTGGATTTCAACATTT
TAATTTCTTTGGAATATAAGTCACTTTTTGCAAGCTAAAAAATAGAATCAAACCTAAGGTG
ATCTAAGTCCTCTAGGCATCCAGGCTGATCCTTGGAATCATGAGCAGAATGATGACATAC
TACANGGGGCTAGCAATACCGGNTNTAACTNTTAAATAATANCCCTNCATGGTTTTATT
AGGGAACCAGCCAAAAGTCCCGNCCCTTTTAAACTNNGGGGGANCCCCGGGCTTNNNGG
GANTTCGATATTNAACTTTTTTNGAAACCCGCCNCNCNNGGGGGGGGGGCCCGGGGCC
CCNACNTTTTTTGTTCNTTTTTAANGGGGGGGNNNNAAATTCGCCCCNCTGGGGGGGAA

Sequence 2445

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTATTGGTATTTAGTTTTATTTTATAATCATAAACTTAACTCTGCAATCC
AGCTAGGCATGGGAGGGAACAAGGAAAACATGGAACCCAAAGGGAAGTGCAGCGAGAGCA
CAAAAGATTCTAGGTTNNTGCGAGCAAATGGGGTNGGNGGGGNGCTTNNNTTGGNTAAAN
AAGGGATGNNNTTGGGGGTTTAAAAAAACCCNNGGCANNCTTTTTNGGGTNNNCCCN
ANCCCCAANNNGGGGGGNNTNTTTGTGGGGGGGTNGNNTNTTTTGGGGGGACNCAAAA
ANGNNNTNTTGGNCCCCNAAAAAAAANTTTAANGGCNTTTTTTTTTTTTTNTAAAA
AAAANNNAAGTTNNNTTGGCCNANNNCNCCCTNTTTTTTTTNGGGGGGGNGGNGAAAA
AAAAAANNNGNNGNCCCNNTTTTTNNNGGGGGGGGCCNAANTTTTTNTCNNTNAAA
AAAAAATCTCCCCC

Sequence 2446

CCGCGGTGGCGGCCGCCGGGCAGGACACAGGAGGCCTTATTACTTTTAAATTATACAAC
ATTTTTGCTTAAATTTTTTAATAAAATTTTTCTTTATGACTTTTGCAGACAATTT
TTTAAACATGTTTTAACTTTTGAATTTTATCAATAACTCTTTTTATATAAATTCTGCCTCTCC
AATTTATTTCAAGGACAAGAATTTATCATATAACTCTTTTTATATAAATTCTGCCTCTCC
CTTTATTTTGAAGATAACCATTGTTTTTTTAAAGCAAACCTTTCTTTATGTGTTTGACT
AGACTGTCTAAGGCCACAAGATTAGAAGTTACCATAATACATGTTACACTGTAACTTTT
AGCAAACCTTCACTTTTGTGAAACCTTATAAGGTTTGGGGATTTCAATTATCCTTTGCT
ATTAATAAGACCTTGTTCACTCTAAATTAACCTAAA

Sequence 2447

NCACTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCAC
GCGTCCGGGAGAATTACCCGAAAAACAACCACACTGCTTCAATCCTGGACAGGATGCAGG
CAGATTTTAAGTGCTGTGGGGCTGCTAACTACACAGATTGGGAGAAAATCCCTTCCATGT
CGAAGAACCGAGTCCCCGACTCCTGCTGCATTAATGTTACTGTGGGCTGTGGGATTAATT
TCAACGAGAAGGCGATCCATAAGGAGGGCTGTGTGGAGAAATTGGGGGCTTGGCTGAGG
AAAAATGTGCTGGTTGGTAGCTGCAACANCCCTTGAATTGCTTTTGTGAGGTTTTGGG
AAATTGNCTTTGCCCTGCTTGCCTCGTGAAGAGTTTAAAGTNNCTTCCNNAGGNTNA
NNTAAGGGTNTCTTNGGTCTTTNTNANNNCCTTCNTTANTTTGGGGGGNG

Sequence 2448

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTGCCGCACTTTTTT
TTTTTTTTTTTTTTTTTTAGAAATTTAGCCACTTCTCAGGCCTTNTTCCCCATAATTG
GAACTTTCCTTTGGATTTGATCAAGTTGGATGATGATCAAAACCCTGATCAAGTTGGA
TAGAGTTGATCAAAACCAATGGGAAAAAGACCAAAACAATAAAAAACAGACAACAAC
AACAAAAAACAGTTAGGCAAAACAACAATGGCACAATTTATATGATAACTGAGTGCTCT
AATGGTAAGGAGAAATTAAGACCAGTTGGTCGTTAATNTTAACTTTAACCAAGACAACCC
CAA

Sequence 2449

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTACAAGCTTCGACCCACGC
GTCCGCGAAAGCGAAGAAGGAAGCTCCTGCCCTCCTAAAGCTGAAGCCAAAGCGAAGGC

TABLE 1

401/467

TTTAAAGGCCAAGAAGGCAGTGTTGAAAGGTGTCCACAGCCACAAAAAGAAGAAGATCCG
CACGTCACCCACCTTCC

Sequence 2450

CCGGGCAGGTACTTTTTCTAATATACTTTTCNATTACACATGAAAGCCATGACAGGAACT
GAGATAAGATTTCTTTGTTTTTGAACATCTTATCTACTAANAAAAATTTNAAAAATCAT
TTNACTTNAAAGCTATTAGTAGTTTTATACTCNCCTTAATAAGTATTAATAAATTTACATA
CTNGACTTAGTAANCTAAGCAATTTGGNTAACGTNTTTNTTTATTNGAGNGANTTTTTGC
CANTTGGATATTTTTNCTACCTTACTATTACNTTATAAATATATTTCCCCAAATATATCN
TTCCTCTTTAAAAANTATGTTTTGNCAACNAACCTTNAAA

Sequence 2451

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCAAAGTTATTGCAC
ATACACTTGTTTACTTTGTATGTTTTGCAGGATTAACTTTGTATAATCTTTTACAAAA
TTTTTTTTTCAGTATGCAAGCTTGCAAGATGAAAATAAACCTGTTTGCCTGATAAAAAA
AAAAAAAAAAAAAAAAAAAAATGT

Sequence 2452

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAGCTGATTACACCAACTT
GAATGAAACGACTTCTCTTGTGAACATCAAGGGGCGCCAGAATCACCTCTGCAAGTAT
TGGGGTCAGCATAGGGACTCACTCCTCCAGTACAAAGGAACCGAGGGGTGACCACCTCTG
AGATGTCCTTGACTTTGTCATAGCCTGGGGCATATTGAGCATCTCTCTCACAGCTGCCTT
TCTTATCCCCATTCTTGATGTAGACCGGCCGCCCGGGCAGGTGCACATACACCAAATGTC
TGAACCTGCGGTTCCCTCTCGTACTGAGCAGGATTACCATGGCAACAACATCATCAGTA
GGGTAAACCTAACCTGTCTCACGACGGTCTAAACCCAGCTCACGT

Sequence 2453

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTAAGAAATAGGGTCTCACTCTGT
CCCCAGGCTGGAGCCATTATAGCTCACTACAGCTTCTGACTCCTAGGCTCAAGGGATCC
TGCCACCTCAGCCTCCCTGGTAGCTGGGACTATAGGCAGGAGATCGCTTGAACCGGGAGG
CGGAGGTTGCTGTAAGCTGAGATCGCGCCATTGCTTTCAGCCTGGGTGCCAGAGCAAAA
CTTTGTCTNAAAAAAAAAATTNTTTTTTTAATTAATAAAAAGGGNCAGGGGATTTTTT
GGGAAAAGGTCNAAAAAATAATTGNNTTTTTGAAAAAANCCTTGGNAAAAANCCAAAAA
AAAAATTNGGNGGGAAAAAATNNTTTNNTTNGGGANAAAAAANAAAAAANNT
ANGGGGGGGGTTTTTTTTTNGGGGNGNGGGGGGGGGNAAACNCAANCCCCCCCCNNTT
ANAAAAAAGGGNGCCCCCCCCCNNGNGNAAANGNGNTNTTNTAATTTTTTTTT
TTTNNCCCCCCCCCCCCNNGGGGGGGGGG

Sequence 2454

GAGACACAGTCTCACTCTTGCCCAGGTTGGTCTAAACTCCTGGGCTCAAGCAATCCTCC
CGCTTTCAGCCTCCCAAAGTGCTGGGGTTACAGCCGTGTGCCACTGTGTCTGGCCCTTTT
CTTTTTCATAGGAGAAGGGTTGTTGACTCCCAGGAAACGTACCTGGAACCAAGAATGTG
AACTCAAGGACCCCCGCCTGTTGGCAGCTGCATTTACTTGACTCCTGTTCACTGTTTCTT
AGCCTTGTCCTTCTCTCCTGCCAGTCTAGGGGACACTGCTTCTCCTGGTTGACCTCAT
CAATGCC

Sequence 2455

CCGCGGTGGCGGCCGAGGTTTCAAGGACCAGCCTGGCCAACATGGTGAAACCCCATCTCT
ACTAAAAATATAAAATCAGCCGGGCATGGTGGCATGTGCCTGTAATCCAGCTACTCAG
GAGTCTGAGGAGGAGAATCACTTGAACCTGGAGGCAGAGGTTGCAGTGAGTCGAGGTTGC
GCTACTGCACTCCAGCCTGGACAACAGAGGGAGACTCTGTCTCAAAAAAAAAAACCTA
CAGCTGTTCAAGGACCAGCTGACAGGTCAAGTGTGGCCTTTTCTGGTCTTTGAACACATC
ATAGAAAGTGACAAATGCTGCAAAGCCATGAAGAACATGAACTATAAACGGGTAGACTAA
CTGCCAGCTTAGACACTTATCTATGCCACAAAACAGCTGAATTTGTCACATTTATATAT
TGCAATAT

Sequence 2456

AGGTCTTCGACCCACGCGTCCGGTGGCTTATGCCTGTAATCCAGCACTTTGGGAGGCCG

TABLE 1
402/467

AGGCAGGCGGATCACAAAGTCAAGAGATGGAGACCATCCTGGCCAACGTGGTGAAACCCC
ATCTCTACTAAAAATACAAAAAGTAGCTGGGCGTGGTGGCACACGCCTGTAGTCCCGGCT
ACTCGGGAGGCTAAGGCAGGAGAATCGCTTGAACCTGGGAGGCGGAGGTTGCAGTGAGCG
GAGACCACGTCGCTGCACTCCAGCCTGGTTGACAGACCGAGACTTCTTTTCAAAAAAA
AAAAAAAAAAGTGCGACCTGCCTNNGCGGNCGGTTAAAAAATNGTGGATTNCCCCGGG
CTGNAGGAATTTTCGATNTTCAAAGCTTTATTNNATTACCGTNCGACCTTTNGGGGGGGG
GCCCCGGTACCCCAACTTTTT

Sequence 2457

CTATACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGA
CCCACGCGTGCGCAATTTTAGGCCCACAAGGAGTCAAGCACCTCAAGGAGATCTTCAGT
TTGAACCTGGTGTAGACACAGGGATACTGATGAATCAATATTCAAATTAGCTGTTACCTA
CTTAAGAAAGAGAGGAGACCTTGGGGATTCGAGGAAG

Sequence 2458

GCTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTAGAGTCGGGAT
GCACAACCTCAACCACCGACTTATCAATGCAGCCGCTGTGTATTGCAATTGGCCGTAC
CTTAAGCACTGAGCCACCCGGGTTTAGTTCAGCCATTTCAAGAAGTATATTTAACGTCGG
TAGTTCTGCTTTATTAATGAAATGCAGCAGAGGTACCTGCCCGGGCGGCCGCGCCGCACTTTT
TTTTTTTTTTTTTAATGAAATTGAGGATTTAACCAAAATGTGAGTTCTAATTAGGACA
ATAAAATTAATCCTAATACTACATTTCTTATAAATACAAAAATGTGTTTTGGAAACACATC
CCACCTGGGGCGCTAAGCGATGAGAGTAAGCAATTATAATGGCTGACTCCTCCAGCTCTT
TGCTTTGAGTTGCCGTAAGAAAAAA

Sequence 2459

CCGCGGTGGCGGCCGCTACCTGCCCGGCGGCCGCGGCCGCGGCCGCGGCCGAGGTCTTCGACCCACG
CGTCCGAACTAATTGGCTTTTGTAGAAACACCCACAAAAGCTCAGAAATTGGCTTTAAAA
AAACAACCACCAAAAAAATCAATTGGCTAAAAAAGTGGGCCGC
TCACCT

Sequence 2460

ACTACTATAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGCGGCCGCGGCCGAGGTCTTCGACC
CACGCGTCCGGACAGCTCGTGTCCACAGGGGTATGGGGTCTCTTGCTGCTAGGATTCTG
GAGTTTCATGGTAAGAGCGGGCCACTCCCCACCTATTCAACTACCCCTTCCCCAGGAGT
TAATGGGGGCTAGTAAGGAATGCTAGTGCTTGAAGCCCTGTGCAGGCTTCTGAGATTCC
TGCCCCCTCAGCCCATGCTCTGCATCCTCCTTCATCCACCCTCAATGTTTTCTTCAA
AGATCTGCTCAGAGTGTGCCAGTCTTCCCAAATTCCTGGTCTCTCCATGAGAGATGTTCT
TCCTGGCTGCTTCTAGTTGGCCATCTGGTCTTGAGTCTTGTACCTCGGCC

Sequence 2461

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTTTT
TTTTTGGGTTTCTCTTTGAAAGNTTATTGNTTCTTTAAAAAAGCTTAACTATACCT
TTTATATTTACATTACCTNTCANAATATTTAATGGNACCTGCCCG

Sequence 2462

ACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGAGCAGGAT
TACCATGGCAACAACATCATCAGTAGGGTAAACTAACCTGTCTCAGCAGGNCATAA
CCAGTAGAAACAAAGT

Sequence 2463

ACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAAAGTTA
TTTTAGTCATGAAATTTTATATGCAGAGAGAAAAAGTTACCGAGACAGAAAACAAATCTA
AGTCGA

Sequence 2464

CTACTTAGGGCGAATTGGAGCTCCCCGCGGNGCGGCCGAGGTTTCAAGACCAGCCTGGC
CAACATGGTGAAACCCCATCTCTACTAAAAATATAAAAAATCAGCCGGGCATGGTGGCATG
TGCTGTAAATCCCAGCTACTCAGGAGTCTGAGGAGGAGAATCACTTGAACCTGGAGGCAG
AGGTTGCAGTGAGTCGAGGTTGCGCTACTGCACTCCAGCCTGGACAACAGAGGGAGACTC

[illegible]

TABLE 1
404/467

Sequence 2473

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGTTTCTCTTT
GAAAGNTTATTGNTTCTTTAAAAAATACCTTTTATATTTTACATTCA
CCTCTCANAATATTTAATGGTACCTGCCCCG

Sequence 2474

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGATCCTCTTCTGCTGTTCTG
GAAAGAAACAGACCAGTGGTATGGAGTATAAGAAACTGATGCACCTCAACCGGATGTGA
AGGAAGAGGAAGAAGAGAAGGAAGAGGAAAAGGACAAGGGAGATGAGGAGGAGGAAGGAG
AAGAGAAACTTGAAGAGAATCATGCTGTTGCATTTAGAACTTTCTGCTTTGCACAGGAAA
GAGTCACACAATTAATCAACATGTATATTTCTCTATACATAGAGCTCTATTTCTCTACG
GTTTTATAAAAGCCTTGGGTTCCAACCGAGCAGTAGATGTGCTTCTGAACCGCANGGAGC
AAACACTGAAATAAAATAGTTTAT

Sequence 2475

CGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTNNGTATTTN
AGNANAGATGAGGTTTACCCTGTTGACCAGGCTGGTCTCGAACTCCTGACCTCAGGTGA
TCCACCCACCTCAGCCTCCCAAATGCTGGGATTACAGCGTGAGCCACCANGCCCGGCCA
ATTTTTGTAACTTTTACAAAGATATTTAATTTAAATTTGATTTTAATAAAAGGTAGACAT
CCAAAAACACAGGATGATGAATGCACTTCAATGTTAGGGGAATATC

Sequence 2476

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTTACTTTAAACAAAAA
TGTTTACTTNTAAGGATATACGCACAAAGGGAACATAATATACAGATAAATGAGAAGTTT
CGATTCTGCATCAAGCATTATTCAATCGGACGCGTGGGTGGAAGCTTGTAACCTGCCCCG
GGCGGCCGCTCGAGGCCGCACTTTTTTTTTTTTTTTTTTTGAGACGGAGTCTCGCTCTGT
CAGGAGGCTGGAGTGCAGNGGCGCAATCTNGGCTCACTGCAACCTCCACCTCCAGGTT
CAAGTGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACAG

Sequence 2477

CTAACTATAGGGCGANTGGANCTNACCGCGNGGNGGCGGCCGNGGNCAAGGCTTCGACC
CACGCGTCCGNAAAAATTANCCAGGTGTGGTGGCACACTCCTGTAATCCCAGCTACTCAG
GAGGCTGAGGCAGGAGAATCGCTTGAATCCAGGAGGNGGAGGTTGCAGTAAGCCGAGAAC
CTACTGCACTCTGGCCTGGGCGACAGAGCAAGACTGTCTTGGGAAAAAAAAAAAAAAAAA
AGTGGCGCCGNCNCCGCGGCGAGGTCCTAGCTTGAGTCGACCCACGCGGTCC

Sequence 2478

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAATTGCTAAAACAGCTCCAGG
GNAAGNNATCTTATTTAGCATTAGCTCCCTCACAACNTTTTTCATTACTTNTATTGG
CCAGNCTCATACCTGAAGTATTTTAAATGAGTTNACAATTATTNCACTTACCNTCAGAAA
AAAAAGGAGCAAAAACTCTTAATGACTGGTNACATGCACATTTGGTGTAGGAAATTATT
ATGNGGTAAAATTTATATATTTCTATTTATTTTATTAATTTATTNTTACACATTATTT
CAC

Sequence 2479

ACTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTTTTTTTTTGGTTTTCTCTTTGAAAGTTTATTGTTTTCTTTAAAAAATACCTTTTATATTTTACATTACCTNTNAAAATATTTAATGGTACCTGCCCCG

Sequence 2480

ACTACTTAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACG
CGTCCGTGGTGAACACAGAGAAGACAGGTCTTGTATATATTCCTCTGTATTCTGGGGAGC
TTTGACCTTGAGCTTTGTACCTGCCCCG

Sequence 2481

CCGGGCAGGTCTACTCAAGTAGTCTTTACCCCTACTCAAGTAGGGGGTAAAGTGTAGAA
CAAGGAGTTTGATCTGTGTTCAACTGATTGTGAACCATCAATTGAGATAACTCACTACCT
TCAAGGCCAGCCAGNTACATACTTTTGNAAAAGCCAAGAGTGGAANCAGGGTTGGTTTT
TAATCCAATTTTTGGGC

TABLE 1
405/467

Sequence 2482

AGGNCGACNTTNTACAGGCAGNNAAACCGGCCAGNTNAAAACACTATGCTANCTCGCGG
GGCCANTNTTAGGATGGGTGAGGCAGATGAANCCATTCTCCNANTGGCCAAGGCCGAGGG
CATCAGCCTCAAAGAACNTTTGACNGGAGAGAATCACANACGTGNNNTATTCGTCATAAA
NAAANAATGAAAAACCNACC

Sequence 2483

AGGTATTCGACCCACGCGTCCGTAGTTTTATCTTTGACCAACCGAACATGACCAAAAAC
CAAAAGTGCAATCAACCTTACCAAAAAAAAAAAAAAAAAAAAAAAAAAGTGCGGCCCGGCC
GCCCGGGCAGGTACCAGTAGCAACATATGAGTATTTCTCTAGATAACTTTTTTTTGACAA
GGTCTCACTCTGTTGCCAGGCTGGAGTGCAATGGTGCAATCTTGGCTCACTGCAGCCTT
GACCTTCCCTAGCTCAGCTGAACCTCCCATCTCAGGACACCATTGCCTCCACTGCCCATC
CTGCATCTGCCTGCCTACCCCAAAAGT

Sequence 2484

AGGTACATTTTCACTCCTGCTCTAAAACCTTGCTCAGTCTCTCACTGTGCCTTATGCCCC
TCAGCTGAATTTCTTTCTTGAGCAGGCAGGAATTGAGGTTGCTGCAGACGTGTATGCAT
TTGCCACCAGTAACATACTTGGTGCCACATGACTAGGATATGTTCTCTAGTGCTAACATG
TTCGTTTACAGTTCTTAGGACTCCCTGATAGAAAAAACACAAAAAACACAAAAAA
CCCAACCAACCAAAACAAACAAAAAACACAGGAGTTTCTCCAAAAAGAAGTCT
GCAGTGTCTTTTCTGTTTTCTCTGAAGGTATCCCAGGGTGTTAGAT

Sequence 2485

AATGTTGCAGGCTACTCTCTGCCGACCAGGCCGCCCGCCCTCGTGACTACAGCAGG
TACCTGCCCGGANGNNNNNANGNAACGNATGTTTCCACCTNCTTCTCCAACCTCTACCC
CACCATTAGTNGTATNTTNACTNTNAAAACAGTGGAACCACAGCCCTAAAGACCTGCTNA
TNAAAGTNCTTTTGTCTTAATTGTATTTAAAAA

Sequence 2486

GGGGAAAACCCAGCTCCACCGCGGNGGCGGCCGCCCGGGCTTTTCAAGCNTCGACCNACC
CGTCCGATAATTTATACTAAATTTAGTAAAANGGACTTNTTATTCAAAGCATCAATAATT
AAAAGAATTATTTAAAAAAGGGACCT

Sequence 2487

AGGTACCCTCACCTTGGTCATCTATCCTGAAATAAGGCTTAGTTAGTATTGGCCTGAATG
TTTTGTGTTTTTTTTTTTTTTTTTTTTTTTACTGTTACTTTGAAAAATATGTATG
TATACCTTATCATATCTGCCTATATCACTTACTTTGGGGAGATACTCAGAGCTTTGTGGT
TATCAGTATACTAAAAAAGTGCGGCCACCTGCCCG

Sequence 2488

AGGTACGCGGGGAGCCTGTCCAGCTGGCCCGGGCCCTGGCCTGGTTCTCAAGTGTTTCC
TAGACAGAGAGGCACCTGGGTGAGTATTAGTCTATTTATCAGAGGTGTAATAATCTATG
TATAAGTTTTTCTCCTTTTAGATTATTTTGTATTTGTTTAAAAGAAGTTTGTCAAATA
CAAAATATAAAGAAATGACTGAAAGTTGTTGACAGGGTTTTTAAGAAATAANTTATTCT
AATTGTTTTTGTGTTTGTGTTTTGCCTTGTAAGTACGCGCAAGGAAC

Sequence 2489

CGGGCAGGTACGATGGGAGGACAGCTTTGTAGAAAGGACATTATNCAGCTNATAGCAAAC
TTTGTGGATCCCAATCCGAGATTTNCCTGCTGAAAGACAAGAAGTNTCTNAAATAAAGN
GCTGTANCAGNATTTGTATACTCCAGAATAAGNTTCTGTGATTCTTANCTGCCAATGTGT
TCAAGGCGTGATGACTNNGTNTCTGTTTCTNTGAACATNAATACTAGGGTCTGTATAAT
TTCAATGCATGCCACCAGCTNATCAACCCTTTTGGCTTTGATTTTTGNATGNNGNATTNT
TATCCCTANGANTCCGGCCAAGTACCTTTGGNCGCCACCCGTGGTGGGAGCTCCAATT
TCGCCCTTATAAGTGAAGTCCGNAAATTACGCGCCGCTCANTTGGNNCGGTNAGTTTT
ACAACGCCNGANGACCTGGGGAAAAACCTTGNCCGTTACCCCAACTT

Sequence 2490

GNCGGGCAGGACGCGGGACCAGAATGCAGTTCAGCTTAGGAAGCCACAAACAAGCCACC
CAGGAGGAACAAACACCGNAGCGTGGATTTTTCAAATTTCCCCGGGAAAGTAAGTCTC

TABLE 1
406/467

GCTTCCTGCCAAANAA

Sequence 2491

CGGGCAGGTNCCTTGCTAAGTTCAGACCTTCTCTTCCTTTNCTTTCCTTTCCTCTCCTGC
CCATTTTCCTGTTCTTCTGTCCCTTCAATACTTCTGNAGCTTCCCATTGTTCTCTTCT
CCCACGCAGGCCNCATTGTGTGCAAAAAGCTGNGGNGGGGGCTGTGCTGNACTCNTNCCTG
CCTCCTGCCTCCTGCGGCTGTTGGATTTGGGAATGACCTTTGGTGAGAGNCTCACTGCTC
CAGGGTCTATTTTTTGGTCCAAAGGCTAGAACCTATANAAGTNGGGAATCACCTNTTTTT
TCTTTTTCNNGGGTGAAAATAAAATGGGTTTTTTCAANTTCNAACAAAAANAAAAA

Sequence 2492

AGGTACAGAGAACTGAATTTACACAATAAAGTGTTACCCTATACCAGTGATTCTAAAATT
TTGGTCTGGGGAACTTTTCATGGGGTTCATGAGGTCAAACTATTTTCATGATAATGTTA
TTTTGCCCTGTTATTTCTATTCTCGAGTATACAGTAGAGTTTTCCAGAGGCCACATGAT
CCATGACATCACAAACAAAATGAATAGAGACAGATGAAAATCTAGCTGGCTTCTGCTACAT
GAATCAGACATTAAGGGGTCCAGAGACCATAAAGTGTGACAACCACCACTCTTCACAACC
TATATATAATATCTCAAAATAATGTTAATTCTCTATCCTCAAAGTTTATTTCTTATATC
TACATTTTCTATGATCAACACACTCACTACAAAA

Sequence 2493

CCGGGCAGGTACCACAAAAACAGTTACATGGTAGAGTTCGAATCACACAGAAAGGAATCC
ATTCAGCAAATTTCCAAAGTTCAGACTGTTTGGGCCACCCAGAATTCACCAGGACTG
GACGGCCCCCACCAGGCTATACTGGATATGTGGACACAGAGCTTATGCTAAGCTGCCTGA
TCAGGACAGGTAGCTGTATAATTGGCACCATTAAAGCCATCTTTCTTCTTACTGCCCATAA
AAACAGGTGAACTTCTAGGCTTCCAGTCTATGCTTCCTGCAAAAAATGAAGCATAGCCA
TAAGTGATTAGAAAAATAATGAATGGCCCTCTGAAAGAATCATACAATACTATAGACCCG
CCACTTAGGCACAAGAAGGCTCATGAGGATATC

Sequence 2494

AGGTACCTTGGGATTGCAGGTGCCACCCCTTGCGCCTGGCTAATTTTTGTATTTTAGTA
NAGACGGGGTTTTGTCATGTTGTCCAGGCTGGTCTCGAAGTCGAGCTCAGGTGATCCGCC
CATCTCAGCCTTCCAAAATGCTGGGATTACAGGTGTGTGCCACCATGCCAGCCAACACA
CACATTTATTTAATGCAAGTTTTACCTAGCACAGAGAAGCAGTGAGAGTCAGTTACTTAT
ATATTGAATTGGACCAAGTAAGTGTGAAGAAGCTAGTAAATATATGGAGGCTAAAAAGC
TGAGTGGTTCTGTTCTAACAAGGTCTGCACAGTAATCTCTTGGCCTCGACTTCTCATCCT
TAAAAATAAGGAGATCGTCCTATGTTTC

Sequence 2495

NNGGGGGGGGGGGGGGCCCCCCCCCNGGGNNNAAAAAAAAAANATTTTTTTTTNTNTTTTT
TTTTTNAAAAAAAAAAAAAAAAANNGGGGGGGGGGGGGGGGNGGGGNGGGTCTTTTTTTN
AAAAAAAAAAAAAAAAAAAAACCCCCCCCCCTNNNTTTTTTTTTTTTTNTNTATNAA
AANNGGGGGGGGGNNNNNNNNNNNNNNNANATNTNTTTTTNNNNNGGNGGGGGGGGGGG

Sequence 2496

TGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACAGCGGGGGCGGAGGTCANGGG
ACAAGATGGTGCCACCGGTGCAGGTCTCTCCGCTCATCAAGCT

Sequence 2497

GGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACAGCGTGGAAGGGTTTANGGCAG
CAGTGTCTGATTCTTTGCGGGACGGCGAGCGCATTTGTGCTTTGCCCGCCGCGGCCTAG
GAGGCCCTTTGAGGCCGCGTAGTCGGTGTTTTGAAGTACTCTACAGCTTCTGGCAGGC
CGTGCGGCGCCTGACCCGGCCTCACCATGTTGGTGCTGTTTGAAACGTCTGTGGGTAC
GCCATCTTTAAGGTTCTAAATGAGAAGAACTTCAAGAGGTTGATAGTTTATGGAAGAA
TTTGAACTCCAGAGAAAGCAAAAAAAAAAAAAAAAAANANAGTACCTGCCCG

Sequence 2498

AGCTCNCCGCGGTGGCGGCCGNGGACNAGGNGCTGANTGTCTGNGTNTCAGAATGGGATN
AGTGNCCTATAAATGAGGGAGCTNGNTTGTCCCTNCCACNACATGAGGTTACAGCAAAA

TABLE 1
407/467

AGATGGCTGTCTATNAACCAGCAAGTTNGCCTTTGNCANACCCCAGATCTGCANACTACC
TTGATNTTGGACTTTNCATCCTGCACAAATCTAAGANANAAATTAAGTGTGTTTATCAAC
CACTCNGTTNATGGTNTTNTTCGTTATAGCAGCCTGAACTAAGACAACAGGTNGATCTTA
AGGCATNGCTACNATNAAGTCTTTCCNTGCTCAGAATCTCC

Sequence 2499

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGGAANTGGATGACTT
TTCTTGTCATATCACCATGGAAATCTGTGTGCTGGGCATGGAGAGTNGAAGCANGCAG
ATGCCAATGCTTCAGTGGCTGGGAAGGTGATCGATGCCAGTGCCCTTCAGCAGCNGCCCA
GNACTGTGTCAATNCAAAGGGCCAAGTGTGCAGNGGAAGAGGCACTTGTGTGTGTGGAAG
GTGTGAGTGCACCGATNCCAGGAGCAT

Sequence 2500

TGGAGCTCNCGCGGTGGCGGCCGAGGTACTATATGTCTGAATGTCTGTGTCTCAGAATG
GGATTAGTGACCTTATAAATGAGGGAGCTTGTGTGCTCCCTTCCACTACATGAGGTTACAG
CAAAAAGATGGCTGTCTATGAACCAGCAAGTAGGCCTTTGCCAGACCCCAAATCTGCAGA
CTACCTTGATCTTGGACTTTCCATCCTGCACAAATCTAAGAAATAAATTAAGTGTGTTA
TCAACCACTCAGTTTATGGTATTTTGTATAGCAGCCTGAACTAAGACAACAGGTAGAT
CTTAAGGCATAGCTACAATTAAGTCTTCCATGCTCAGAATCTCCATCTGCTGGCCAAGC
ATAGTGGTTGCGCACTTGAATCCTGGCACTTTGGGAGGCCAAGGGCGGGTGGGTACCTG
AGGTCAGGAGTTTGAGACCAGCTTGGCTAACATGGCAAACTCTGTCTCTACTAAAAATA
CAAAAATTAGCCGGGTGTGGCGGNGGGTGCCTGTAATCCAGC

Sequence 2501

NTGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGCCGCGGGCCGCGGCGCCATTNTTCTTTCTTT
TTTTTTTNGCGGATGGGGACTTGTGAATNTTCTAAAGGCGCTATTTAACATGGGAG

Sequence 2502

AGGGGCGAAATTGGGAGCCTCCACCGCGGTGGCGGCCGCCGAGGTACTTTTCTTTTTT
TTTTGNTGGATGGGGGACTTGGNGAATTTTTCTAAAAGGGGGCTATTTNAACATGGGGA
AGGANAAGCGTTGTGCCGGTTTCCA

Sequence 2503

CCGGGCAATCTAAGAAGACATGATCACTAAATGTGATGTGGGATCCCAGATGGGATCCTG
GACCAGGTAAAACTAAAGTAATGTTTCAACTTCAGTAAATAATAATGTATCAATATTGG
TCCATTAATTGTGGCAATGTGCCACACTAATGCAAAGCGTTAGTAACAGGGAAAACTGG
GAGCAGGGTATATGAGAACTTTTTGAAGTGTTCACAATTCTCCTGTAAATCTAAAACT
CTTCTGAAATAGAGTTTATTCTTTAAAGTGTCTGGAGGATGTGCACAAGGGTGTGGCA
GCAGAGGGGCTACAGGTAAAAATCATGACATCTGGAATATTTCTTCAATTTTGCTCC
ACACGGTGACTATCTTACCCTGCTCCC

Sequence 2504

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGAGGGTACCCGGGGGGTCTGAGG
ACCCGAGGTCTAGGTGGATCTTTTTACGGAGCAAAGAGCAGGAGGACAGGGGATTGAT
CTCCAAGGGAGGTCCCCCGATCCGAGTCACAGCACCAAATTTTCATGCGCATCTGTGTA
AAGAGACCAACAAGCAGGCTTTGTGTGAGCAGCAAGGCTGTTTATTTACCTGGGTGCAG
GCGGGCTGAGTCTGAAAAGAGAGTCAGTGAAGGAAGATGGGGTGGGGCCGTTTTGTAAGA
TTTGGGTAGGTAAAGGAAAATTACAGTCAAAGGGGGGTTGTTCTCTGGCAGGAGTGGGGG
TCACAAGGTGCTCAGTAGGGGAGCTTTGAGCCAGGATGAGCCAGGAGAAGGAATTTAC
AAGATAATGTCATCAGTTAAGGCAAGAACAGGCCATTTTCATT

Sequence 2505

CCGCGGTGGCGGCCGCCGCGGCGGAGGTACTAACAATGCAGTAGCCAACAAGATTACCATG
CAATCATTAAGGAGAACCAGTAAGAGAGCCACTCAAACCAGATTTTGAACGCTACTAA
AATTAAGTAGTTCTTTGATGAATATGAATGAGTAGGGAAAGGATTCTTTGTAATAGTGA
TACCTCTGTGGTAAGAGAAGGGTGGTATGTGAGTTTTAGTCTACAGATTATGGCAAATTC
AGTGACAACAATCAAATGGTCTAAGATTGACAGTAGCACAGTTTTACTCTGTGAAGGTAA
TGTTCAAGACAAATTTCAAGAAAAGTAGAAAACCATTTTACAGCTGAAATCTTCCCT

TABLE 1

408/467

AACCATTGTTATTTCCACTTTTAAAGTCCTCAAGAGATGAGAAAAGGGAGGTAAGGCTTCC
TTATACATTTCTGCACAATGAAACATTTTTCTCCTCCAGGCAAAAGATTCAAGCAGAA
CTGGCAAATATCTTATCTTGCTCTTCTTAATAATATAATGGTGGTAGGATATAAAGGTCT
ATACAATTAACCTANAT

Sequence 2506

ACTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGNCNGGCCAGGTACACNTTC
TTAGACCTCAACCTCGAACTNTCAAATTNAGGATGTCTCANCCCTACTGAGGCCGGGAG
TCACCTNNACACTGANGGCCCTNNGTGNGAAGATGAACCTTNCACCGTCTNTANTGCATT
CTGGAGTGCAAAAATAAAATCCACTNAAGAGTCACAAGGCCCGCTGTGCATAATNGGNTT
CACTTTTACCTTTTTTT

Sequence 2507

CCGCGGTGGCGGCCGCGGCCGGGCAGGTACATGTAATGCTCCTGAACTGTATGCTTCGCACG
GCTGACATGCTAAGNTTGTCTGTGTATTTTATGACTATTTTTTAAAAAGTAAACAAA
AAGAATTAGCTGGAAATACCAGCACAGGCAAAACCCCTGGAGACAGAAAGCAGGTGAGTGG
NTGCTGGGGCTTGAGCAGGAGGAAGGGCGAGGGACTGCANAATGGCCATGGGCTTTGCCT
TCTAGCATGATGAGAATGTTCTGGAATTAGACAGTGGTAACGCTTGTTCAACACTGCCAG
TGTAAGTTAATGTCACTGAATTATACACTTTAAATGGCTAACATGACCAATTTTATGTTAT
ATATATTTTACTACCACAAAAAACTANCTGGCACCTAAAAACATTCCATTGAACAGGCC
CCTTCAGATCTGTGCTTTTCTGTCATGCAATTACNCCACAGAGCAAGCACCTATGGCAN
CGTGGATCACAGGCTCTGTTTTANGATAGANAAAGGACACAAGGNGTCCCCC

Sequence 2508

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCTTTTCTTTACTTTT
TTTTTTTTTGAGACGGAGNCTCACTCTGTGCGCCAGGCTGGCGCGATCTTGGCTCACTGCA
ACCTCTGCCTCAGGGTTCAAGCGATTTTCTGCTTCAGCCTCCTGAGTAGCTGGGACTA
CAGGCACACGCCACCATGCCAGCTCATTTTTGTATTTTAGTGGAGATGGGGTTTCACC
ATGTTGGCCAGGATGGCCTCCATCTNTTGACCTTGATCGCCCCGACTCGGCCTNCCAA
AATGCTGGGATTACAGGCGTGAGCCATCAAGTCTGGCGAGAGAGATTGTTCTAGATGAG
GGNGGGGGCCGGNTGTCTTANCCCAAAGCTTGTCAGGTCTCTATCAGAAATAATGCC
CCCCAAACCAAAAAAAAAAAAAAAAAAATAAGGTACCT

Sequence 2509

GCCGGGCAGGTACTACNTCAGCAATTTCTCCANNGNCGNNGNCGACAGCATATGGCACCA
GCCCATTTTCAATTTGCTGAGCATCGGCCAAAGCCTGTATGCGAAAGCCAAGGAGCTGGA
CAGAGTGAAGGAAATTCAGGAGCAGCTCTTCCATATCAAGAAGCTGTTGAAGACCTGTAG
GTTTGCTAACAGNGCATTAAAGGAGTTCGAGCAGGTGCCGGGACACTTGACTGATGAGCT
CCACCTGTTCTCCCTTGAGGACCTGGTCAGGATCAAGAAAGGGCTGCTGGCACCCCTTACT
CAAGGACATTCTGAAAGCTTCCCTTGACATGTGGCTGGCTGTGAGCTGTGTCAAGGAAA
GGGCTTTATTTGTG

Sequence 2510

CCGGGCAGGTACAATTGNTTGAAGATANTTTGTTTTCTCTCTTCAGTTTCNCATATT
ACTAAAGACAAATCATGGTAGGATTGGNTTGTATTATACTTGGCCTAACTATTTGTAT
ACAATGCAGCAAGAATGATTATTTTACTTAGGCTTTAAGTAGGCTCTGATGGAACCT
TGTTCCATAGCAGGAATCTCAGATAAGACTTTGTAAACCCGTAAACTCANCCGAGCCA
TGGATTTATGCCATTAAATACCCATGAGTTGGGTGAAATTCCTNTCCTTTNGAGGGCCC
AAGATAAACCTGGGGCGTCTGCACCTGNCAAAAAGTGATATTCTTTACTTACACAG

Sequence 2511

AGGTACACNGNTNNAATCTTACTTCAACTTTNAANGGGCCACNNAACCCTCTATATCCC
CTTGTAATTTAACTGCTAGTCCACAAGAGGAACAGCTCTTTNTACACTAGGAAAAAACC
TNGTNGAGAGAGTANAAAATTTAACACCCATANTNNGCCTAAAAGCAGCCACCAATTAAG
AAAGCGTTCANGCTNAACACCCACTACCTAAANATCCCCAAAAAANAAAAAAGNAC
GCGNGGANGTGTNAAATTTNANAGAAGAATTTNTNTTGTGTTCTTGCACGAAGGNANA
GATAAAGACACTTTTTCAAAA

TABLE 1

409/467

Sequence 2512

CCGGGCAGGTACGCGGGGACTGAAAATNGGACTGTTCAACTCACCTGGCAGCCACTCCCA
GAGCTCCTGGAAGTCTGGCCCAAGGTTCTCTGACTGACTCCTTCTTGGCTTACTGGCTGA
AGACTGACGCTGCCTGATCGCCTCAGAAGCCCCGAGACCATCATGGACGCCGAGCTTTA
GGTAACTCACAGTGGAGGCCCCGCTGCACCCAGGTGAAATAAACAGCCTTGTGCTCACA
CAAAGCCTGTTTGGTGGTCTCTTCACACAGACGCGCATGAAAGGGAAGACATACAAAAC
AAGCCTCTGAGGTAGGTACCT

Sequence 2513

CCGCGGTGGCGGCCGAGGTACTTNTTTTTTTTTTTTTTTGGGTTTCCGGGGTCTGNTTG
GGGGTCTCAATATTTTTGGCTCCTCTCCTTTACAGACACCTTGTATTTCAAAGTTTTTC
TTGGAGTCNAATTCCTGATCAGAAGTTTGAATGGTTGTTACTGCTGTGTTTTTCATGTCA
ACAATTTCTTTTNTTGTTCCTGACAAGGTGTCCTCTTGCAGCTGACTGTATTATTATA
GCGCTTTCTTTCTTTCTCCTGTATTTTTTGGTATCTTNTTGAACACAANAATGCTCTG
ACACAAGCTTGAATCAAAATAAGCTTGTCAATAGCTTCCTTTTCGATTAGATTTAACTGC
TCCACGNGATAATACTTAAGGAACACTTTTGTTCCTTCAAGAGCCCAGTTATCGAGACCA
GCTTTTTCCAAAATGGTGGCACAAGTGTGAGGGCTCATGCGGG

Sequence 2514

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTT
TTTTACTTTTTAACTTCTTGTTAAAAATGAAGACACAAACAAACACATTAGCCTAGGC
TTACACAGGGTCAGGATTATCAAGATGTCACTTAGGCGATTGAAATTTTTAGCTCCATT
ACCATCTTATGGGACCACCATCCTATAAGCAGTCTGTCTATTGACCTAAACATCATTATC
AGCACAAGCGTATTTCAAATTTAGAGTTTTACTTTGATGTTCTTCTTTTTTCTTTTTCT
TTTTTTGAGACGGAGTCTCACTNTGTGCGCCAGGCTGCAGNGCAGTGGTGCAATCTCGGC
TCACTGCAACCTCCAGTTTGGGCCACAGAGCGAGACAGCGAGACTCGGTCTCAAAAAAA
AAAGAAAAGAAAAGTACCTGCC

Sequence 2515

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAAATAAAC
TCAAAGGATAGGTTCAACACCATAATAGAGAGGACAGACAAAAAGAATCTGTGAAGTTGA
AAATTGAACAATAGGAATGACCCAATTTGAATAACAGAGATAAATGAACAGAGCCTCAGG
GAATTGTGGGAGTATAACAAAAGATCTAACACTGATGTCGTCAAAGTCCCAAAGGAGAGA
GAGGGGATGGGGCTGAAAAAGCACCTGAAGAAGTAATGGCTGGAAGCTCCCCAAATTTGG
CAAAACACATAAGCCTACAGATTCAAGAAGCTGGGTGAATCCCAAATGAGAGAAATCCCT
TCAAATTCACACAAAGACACATTATAGTCAAATTTNTGAAAACCTNNCANATAAAAAGAAN
TNGNCAAATNNGGTACCTGCCG

Sequence 2516

CCGCGGTGGCGGCCGAGGTACTTTTTTCTTTTTTTTTTTTTTTTTTTTTTGGAGACGGA
GTCTCACTCTTGTCAACCAGGCTGGAGTGCAGCGGTGTGATCTTGGCTCACTGCAAGCTC
CACCTCCCAGGTTCAAGCCGTTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTATAGGC
GCCTGCCACCACGCACAGCTAATTTTTTGTATTTTAGTAGANACAGGTTTTCACCACG
TTGGCCAGACTGGTCTCAAACTTNTAACCTCAGGNGATCCACCCGCTCAAAGNGCTGG
GATTACAGGCTGAGCCACCGCACCCGGCCAGACTCCTTAAATGTGANAAGTAGCACT
GAGGAATGTGATCAGATTATGGCTTGATTGGCACATGGGGTCGCTTTCACGGTTGGCC
TTCTTGTTCTCCACGGCATCTTGTGCATAAGCCATTGCCATTTAGGAGCTCAGCATGC
ACATCCCGGGATTCTGNGCTTGGGT

Sequence 2517

CCGCGGTGGCGGCCGAGGTACCTGTGACATCATAATTGCACCCTCCGACATGATATCTCT
TCCAAATGCTTGATGAAAAAGGTGGGAGGATCACTTGAGCCAGGGAGTTGAAGGCTGCAG
TGAGCCCTGTTTTGCCACCACACTCCAGCTTGGGATTGATTCTTAAAGACTCATGTTAC
GTGAGGAAGCAGCTCAGAAGAGGAAAGGAAAGGAGCCAGGCATGGCTCTTCTCAGGGAC
GCCTGACTTTCCGGGATGTGGCTATAGAATTCTCATTGGCAGAGTGGAATGCCTGAACC
CTTCACAGAGGGCTTTGTACCTGCCG

TABLE 1
410/467

Sequence 2518

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTGGGGCTGGAAGGGG
GGCAGAGTCTCACTCTGTTGTCTAGGCTGGAGNGCAGTGACAGAATCACCGCTCACTGCA
ACCTCTGCCTTCAGGTTCAAGTGATTCTNGCGCCTTAGCCTCOGGAGTAGCTGGGATTA
CAAGCTAATCCCANCTAGGCGTGCGCCACCACACTCGGCTAATTTTNGTTATTTTTATTA
TAGTANAGACGGGGTTTCACCATGTTGGCCAGGCTTGTCTCAAACCTCCAGACCTCAAGTG
ATCCACCCGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGTGCGAGTATATGCTTTTAA
GGGTATCCAATCAAGCTAACTATGGTGATGGAATGTCTCCAGTTCCTCTGTAATACACGT
ATCGTCCAGCCCGGTACCTGCCCCG

Sequence 2519

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACTTGAGA
TTANGGGAGTGTTGATGACTCTTAACAAGCATGCTGCCTTCAAGCATTTGTTTAAACAAG
CACACCTTGACAGCCCTTAAGCCATTTAACCTGAGTTGACACAGCACATGCTCAGGG
AGCACAGGGTTGGGGTAGGGTTACAGATTAACAGCATCTTAAGGCAGAAGAATTTTTCT
TACAGAACAAAATGGAGTCTCCTATGTCTACTTCTTTCTACACAGACACAGTAACAATCT
GATCTCTCTTGCTTTTCCCCACAACCTCAGCCTCTCAGAGTGCTGGGATTACAGGCATGA
GCCACCGCGCCAGCCTCCCTTTTAAAGCACTTTCTGAAGTCAAGCCTGATTACAGGATTG
CAAGCCTGCAGAGAACTATGGTGTTAAAGCCTAAAAAGATAGAATCCTTCCACACCTGA
GAAGGCAGGTATTTTTAGAAGGAAACACCAGAATCACACTTAAGTCACTGCAAAGGCATT
CATGTTTATACATTTCTGAACTGTCTTACTTGGAACCTTATGNGG

Sequence 2520

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCATGGTGGCTCACGCCTGTAAT
CCCTCCACTTTGGGAGGCCAAGGCAGGTGGATCACCTGAGGTTGGGAGTTCGAGACCAGC
CTGACCAACATGGAGAAACCCCGTCTCTACTAAAAATACAAAATTAGCTAGGCNTGGCGG
CACATGCCCGTAATCCCAGTACTCCGGAGGCTGAGGCAGGAGAATCACTCGAACTCGGG
AGGCANAGGTTGNGGTGAGCTNANATCACACCATTGCACTNCAGCCTGGCCAACAAGAGT
GAAACTCCATCTCAAAANAAAAAAGGAAACATGAAGCCTTCCTTNAATGATGATAG
TTTCTAAAGTGAATTATTTGAATCTCTTTGCATGTTTTGGCTCTGTTAATCTAACTCTTG
TCTCTAAATAGATGCTGAAAGTGTAATCTAGATGACTATAACATACACGTNATTGCAAG
TGATTCAA

Sequence 2521

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTTATTCTTTTTTTTTT
TTTTTTGGTTATGAAAACCTTAGGGACTAAATTAATATAAAATTGGCATAATGTTGGAT
TGAATCTACATTTTGGCAGAAGTTAAACATTCCACATAATGTCAAATTATACATCATG
CAGTTCTGTTTTTTGTTTGTATTTGTTTTGTTTTGAGTCTGGCTCTGTCACCCA
GGCTGGAGTGCAGTGGCGTGATCTGCAACCTCTGCCCCCGGGTTCAAGCGATTCTCCTG
CCTCAGCCTCCCGAGTAGCTGAGATTACGGGTGCGCGCCACCACACTTGGCTAATTTTTG
TATTATTAGTAGAGACGGGGTTTCAGCATGTTGGCTAGGCCGGTCTNTCCTGACCTCAGG
GTGATCAGCCCACCTCGGCCTCACAAAGTGCTGGGATTACAGGCGTGAGCCACCTTGCCC
AGCCACATCATACAGTTTGAAATGAAACTTTGCCACAACACAGCCTTTGCTGTAGCACAC
ACATATATCACTGAACCTGTTTGNAATAAAAGTTTTTTTT

Sequence 2522

CCGCGGTGGCGGCCGCGGCCGCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTNGGTGATTTGNCCTTAGTTTTTAAAAACAAAAGTGTTAACTAGAATNTAACACAGA
TCAAATCCAAACNCAGCAGTCCAGNGGAGAATCAAACTTTTCCGGCTTTATTNTNTGGG
AAAACCCCTGGTCTGTTTTCATTCTATTGGNCCAGGCCACCATNTATGATATGAAGGC
CTAAATTAGGAAAGCTAGGNGAGCTGNGCAAATNTGGGTGTCTGANCCNCCTGTTGTTT
GGCGTGATGGGGGTGGAGGCCCNACAGGGGTGTTCTCGCTAGNGTTCAAATCACAAA
AACAGGGACCGTAACTAGGGGGAGGNGAGCAAAGCNCTCACCTTGGGCACAAAATTTAAG
GNGTGCCAAAAAACCCAGTAACCAAAGATAAATACTNTTTTAAATGCAACATTTTTAAAAA
ATCCAATTAAATGTAAAAAGTTTTTGATGGACAATGTTTCNAAAATTTTNAATAAAAGG

TABLE 1

411/467

GTTCCCCCGTACTTTTTTTTTTTTT

Sequence 2523

ACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTACACACATTACACTATCCC
TTATCAAATATACTGAATGTAAGTAGGCTGGGTGCAGTGGCTCATGCCTGTAATTTTCAGC
AACTTGGGAGGCCAAGGTGGGTGGATCACCTGAGGTGGGGAGTTGGAGACCAGCCTGGCC
AACATGGTGAAACCCCATCTCTACTAAAAATACAAAAATTAGCCAGGCGTGGTGGCACAC
GCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGAACTGCTTGAACCTCGGGAGGTA
GAGGTTGCAATGAGCTGAGACTGCACCACCGCACTCCACCCTGGGTGACAGAGCAAGACG
ACGTCTCAAAAAAAAAAAGTAATTAAGCTTGTTTCGATTACTTAGGCTCATCAATAGT
AAGATCAACATGGTACCTGCCCCG

Sequence 2524

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGNCCGGGGTCTTTGTCTNAAAACGT
TAGATCTGGGCTCTGATTCCCTAACTGCCACTCGTGATCACAGAGGTGCAGAGAGTCATTA
GCCATTGTTGCACTTCCATTGTTGCAAGCCCTCACCTTCTGGTTGAAGTGAATTTTCAGG
AGAATTAAGAGCTGGNGTTTCCCTCCCCACTCCCATTCATTTTTCTCATTTTCCCTT
TTGGGAGCCAGATAAACACAATTGCNTATATGAGAGAAATCAGAAAGTCATGGCACAG
CCTAGGGGATGGTGCAGGCTCAGAAAAGACCTCTGAGAAGACCTTAGATTTATACTTCAG
ACTCATCTTAGGCAAAGAGGGCTTACAACAATCAAAAAACAAAAATAATAAAAAACAGTA
ACAAAAACAGCAAAACCTGNAGAAGAGGAAGAATCTGATTTCCAGAGTTAACACATTAGT
AAATTCTAATGTCTGGTTTTCAACAAAAATATCACAAAGGGATTACCAGAGAAACAGGGA
AAGTGTAACCCCATTCAAATTGAAACCTAAAGAGACTTAANAAACAANAGGGATTAAAG
GTCAAGAAAATTTTTTA

Sequence 2525

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGGAAGGTACAGGGCTT
GAGTCGTAGCCAGGGATAGNATTATGGGTGAGAATAGACAGGATGGAGGACACGAGGCCA
CAAAGCCCCACAATCCAGGGCCACAGCGCCAGAGGCCTAGTTTGTCCAGAGGAATGAAG
AGATCACAGGCATTTCTGACCACGTNTAGCANAAGTGGGGGATGACCTNTAAGGGCTCGA
GCCAGGAGCNTGACTTGCAGCCCNAGTTTCAGAGCCAGTTGGGGCANACCTCCTCCTGGA
GTCCTGGTCCCCCAAGTCCCCCAGTTTTNATTTCTCCTGAGTCTNTCTTCAAAANCNT
TTAATNCNCCGNTTNNANGNAAANNATTTTGGTTCATTNATANGNCNANTTTNTNAACCT
TNCNGGTTAAATTNATNANTNNGGAAAACNAATTGNACCNNCCNNGCNNAAGCNGACCC
CCNGCCCGTACNTTTTTTTTTTTTTTTTT

Sequence 2526

CCGGGCAGGTACGCGGGGCTTCTGTTGGGCGTTTCTGCTGAGAGGCGGGAGGCGCCGAGA
GTCTGTGCGAAGGTCCGTGGACAGACTGCTTTGCCTGTTGTTGCTCTTCGAGGCGGCCGA
TCCCCGAAGGCGAGCTGAAATACGGCTGCAGGCTACAATTTGCAGCCGACCATTATGGAT
GACAAGGAGCCGAAGAGGTGGCCACCCCTCAGGGACCGCTTGCTCGGATGGCTTCTTA
TTTCCCCAATACCCCATTAACCGTATCATCTGAAGGGGATCCACAGAGTTGTCTTCTAT
CGTGATCTGGAGGAACTGAAGTTCGTTCTGCTCACC GCCTTATGACATCAATAAGAGAGA
CAGGAAGGAAAGGACCGCCCTACATTTGGCCTGTGCCACTGGCCAACCGG

Sequence 2527

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCAAGAAGTAAGTGGA
CACCTTTCCCTGTCATAGTTATTTTCATCCAGACATCTGGTGGAAGCATCAGATTCCGAC
AAACAAGGATTTATGTCAGGATCTCTCAGCCTCTGTGTTACCGAGGGCATTCTAACAGTC
TTCTTACTCCGGCCTCCGCTTCGCCAGCACCCAGGCCGTCTCCAGCTCCAAACACCCCCG
CGTACCTGCCCCG

Sequence 2528

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTT
TTTTTTTTTTTTTNGGAANGAGTCTCGCTCTGTCAACCCAGGCTGGAGTCCAGNNGGCAG
ATCTCGACTCACTGCAACCTCCACCTCCCGGGTTCAAGCTATTCTCCTGCCTCAGCCTCC
CGAGTAGCTGGGACTACAAGGGATCTGCCACCACNCCCGGCTAATTTTGTAAATTTAGT

TABLE 1
412/467

AGAGACGGACTTTACCATATTGGCCAGGCTGGTCTTGAACCTCTGACCTTGNGATCCAC
CCACCTTGGCCTCCCAAAGNGTTGGGATTACAGGCGTGAGCCACCGCGCCCGGCTTACTA
CAAGTCATAAGTTTCTTAAAGGCAATGTAACTCCGAAAACCTAATGCACTCTTATATTG
NTAATACATTAAATCCACTGGCCTGGCTTACACTTTTGAATCAATCTTTGAGCCATGCA
TGATTTTGTAACTTACGTACCTGCCCCGGCGGGCCGNTTNTAAACTAGNGGATCCCC
CGGCTGNAGGAATTGAATTTAAAGCTTTATCGATCCCGCNCCTCGANGGGGGGNGCCC
G

Sequence 2529

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTGTTTTTATTTTTATTTATGTTGGCAGAAAAGCTGAGGCAGGGCTTCTG
ACATAAGGTAAAAGTGTCTTGAACATGTCCTGGGTCCAGGGTCTATAACCCCTTGNGGC
CTATGGAACACCAAGCTCTGTGCCAAAGGGTGAAGGCTGCCCTGCCNCACTACAATNTA
AGCCCAGAGCATAAAACCCCTTGTAGCCTGNGGAATATATNCANACTCGCTGGCCCCTTG
CTCNTTGCTCTNCCAAGATCACAAATNGATTGCATNTNNAATTAAAAAACCTGNTCTCC
CTTATCNNAAGGTAGCAAGANNCATAGCCAAACCCGTNCAGGNTACCGNTTGNNGCACCA
ATTACCTTTNTNTCNTNACGTCCTAACCTGGCNACCCCTACNTCANAACATCCTAATTAC
CTGGTTTTTTTTTTGGATTCCCAATAAAAAGGGGGG

Sequence 2530

CCGCGGTGGCGGCCGCCCGGGCATGGTACGCGGGGTCCCTACAAATGCAACGTCTGCAAT
AAAGTCTTCACCCAGCGCTGCTCTCTGGAGTCCCACCTGAAGAAAATCCATGGGGTGTAG
CAGCAGTATGCCTATAAGCAGCGGCGGGACAAGCTCTACGTCTGCGAGGATTGCGGCTAC
ACGGGCCCCACCCAGGAGGACCTGTACCT

Sequence 2531

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTGGAAGACCTTAT
TCGATATCTTGAACCAGAGAGATGGCAGTTGGACTTAGAAGATCTATATAGGCCAACTTG
GCAACTTCTTGGCAAGGCTTTTGTTTTTGGAAGAAAATCCAGAGTGGTGGATCTGAACCT
TCTAACAGAGGAGGTAAGATTACAGCTGCACACCTCGTAACTTCTCAGTGTCCATAAG
GGAAGAACTAAAGAGAACCGATACCATTTTCTGGCCAGGTTGTCTCCTGGTTAAACGCTG
TGGTGGGAACTGTGCCTGTTGTCTCCACAATTGCA

Sequence 2532

GGAGCTCNCCGCGGTGGCGGCCGNCCGGGCAGGTACCNCGGGGTGCCCGNAAGCAGTT
GTTGTTGGTTGGGGCCCTTTGGGCCGGTGACGGANACTGCCAGGTGTTGGNCACCATGT
TCCTCTNCGCGGTCTTTTTTGCCAAGAGCAAGTNANATGNAACAAATAGTCTTTTCGTG
GAAAAGAAAAAATNCGCTCCCTTTNAACGGTGGATTGAAAATGACTNTGNTTTATAAG
AGAACTGAGGGCGGGGATACTGATTCANAAATNCTGTANCGTGAATAAAAG

Sequence 2533

CCGGGCAGGTACAGCTGCATCAGCTGCTCGTAGGACATGTCCAGCAGCTGGTCGAGGTCC
ACGCCGCGGTAGGTGAACTTGCGGAAGGTCCGCTTCTTCTTCTGCTCTACTTCTGCCACC
CGCGTACCACGGCTATCCTTATAGCTTTTTAATTAAATGAAGCCAAGTGGGATTTGCATA
AAGTGAATGTTTACCATGAAGATAAACTGTTCTGACTTTATACTATTTTGAATTCATT
ATTTCAATTGTGATCAGCTAGCTTATTCTTGTGTACCT

Sequence 2534

GACATGGCGCCCGCCGCGCTTCCCCCCCCGCGTACTTTTTTTTTTTTTTTTTTTTTT
TTTCTTTCTTT
TTTNGGGGGAAATTANAAAANCNTTN
TTCNAAAAAAAAAAAAAAAAAAAAANTAAAAANTNTAAANAAAAAAAAAAGGGGGC
CCNGNNCNNTAAAAAAAANNGGNCCCCCGNGNGGGNGNAANANTTANAAAAATNTTN
NNANCCCNNGANAANGGGGGGGGNCCNANNNAATTTTTTTTNTTTNANGNGGGGA
AAAANGCNCCCTNGGGNAAAAAA

Sequence 2535

CCGCGGTGGCGGCCGAGGTACTTCTTTTTTTTTTTTTTTTTTACATCCCATATGACA

TABLE 1
413/467

TTGACTGATTAAAAAGGCCTGATCGGTTTTGTTATCTTCCACACTTCGTTTAATTTAAC
TTGTGTTTTGTATCTCTTATAAACCATAGATAGGCCAGGCGCAGTGCCTCATGCCTGTA
ATTGCAGCACTTTGGGAGGCTGAGGCGGGTGAATCACCCAAGGTGAGGAGTTCAAGACCA
GCCTGACAACATGGTGAAACACTGTTTTACTAAAAATACAAAAAATTACCCCGGCGGNGG
GGGNATGCCCCCTGGAAAATCCCACTTCNTCGGGANGGNTGANACAGGGAAAAATCCNTT
TGAACCTNGGAAGGCAAAAGGTTTCNANNGNCTTANAAANCCNNCCATTTGTTTNCNN
AGNCTNGGGNGAAAAAGGGCAAAAATTCCTTCNCCAAAAA

Sequence 2536

GACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCCCGCCCGGGCAGGACAAAAACAA
GACTTTTCATCAACTCTTTTAGATATGCTAGAAGAGCTAAAGGAAACCATGGACAGAGAA
CAAAAAATTAGGAAAGCAATGCCTCATCCAATACAGAATATCAATAAAGAGATTGAAAT
TGTAAGAAAGAACCAATAGAAATTCGGAGTTGAAAAGTATTATAACTAAACTGAAAA
TTCCTAGAGGTATTGAGCAGCACTGGAGAAGTCAGAAGAAAGAAATCAACAGGCTTCA
AGATAGGTCAATTAAGATTATACAGTCTGAGGAGCAGAAAGGAAAAAGAAATGAAGAAAA
TGAACAGAGCATAAAGACCTCTGGGACTCTATCAAGCA

Sequence 2537

CCGCGGTGGCGGCCGCCCGGGCAGGTACAGAGTGTAAGCGAGCTACACCAAAGAATGGTG
ATTAGCGCTCCCAGGGTGGGGAAAAATGAGGATTGTTTATATAGGCAAAATGGAGGTGCC
AAACAGAATTATAACATTTTCGGAATAAGGCTCATTTAAAGATACAAATTTGATTGGCT
ACTATTGATTACACTTGAAGGGGATTTGGTTAACTTTCTTTGTNAAAGAAAGNACNAG
NNNNTAAGNNNTTTANTTTCCANCCNTTTAAGTCTTAGGTTTTTGAANAANAAT
ANGGGGGGCTGGGNTTAAATTTTACCCTNNTAAACCCCNAAAAGNCCAGAAAAAN
AAATAAAAANGTTTGGTNGNTTTTCCACCGACCCAGGCTTGGCAAGGCNCCCTAAT
TTTTTCNTCTTTNGGCCNAAATNCNATTTGGGGAAGGGCCNAGAAATGNTTTTTNTT
TTTACCATTCCCCTNTTANTGGGNAANNTT

Sequence 2538

CCGCGGTGGCGGCCGCCCGGGCAGGTACATCACAACAGTAAAATTTTGCTCTTTGCTTCT
GGAGGAACACCCTACAACAGGTAATTAATAATTAATAATGAAAGGGGAGCTAA
ATACCTGAAAATTTAAACAAATGAAGCAAAAAAAGGGAAACAAATTCATTGCAAGAGA
TGGAATTACATTTAAAGGCTGAAAATAATAAGAAATTCATAACAACNNGGCCCTAT
TGNCTTGGCTCCTTCAGAAAAGATTACTGGAANGGAACCTGGGAAGGGGGTTGNGGAAA
TACAAATTTTTGGGANTTNGGGGGAAANTTANCACNGNGNGGAAANCCCCCNNGNACC
CCNTTTTTTTTTNGNGNCCTTTTTTNAAAAAAANNGGTTCCCNNGGNCCNAA
AAAAAAAANTAAAAAATTTTTTTCCCCCCCCCTTTNAAAAANNGGGGCCCCCCC
CCNNNNGGNNGGNATTTTTNNNTNNNTTTTTTTNCCCCCCCC

Sequence 2539

AGCCTTGAGCAGGCAATGATCTCCACCCTCCTGGGTGCGGGTGCACTCAGGCATCCC
TGCACTTTGGGGCCTGCTTTTGCAAGGCTCGGAAGTGCTTGCCTCTGCAGCTTGGCTTC
TCCCTGCTATTGGCACCAGCTCTCAGATCAAAGCAGGGGGGTAAAGCCTGGAAGCCATGAA
CAGGGAGGGCCTGAAGGCTGAGGGCCAGGCTGCCAGTCCACCTGTAGGAGTGGGAAGT
GTGCCTTTTCCAGGCCAGTAAGTATGCACTTNTCCCCGAGGCCCGTAAATGCCCCAG
GCTCAGCCAGAACTGAGCAGAGGGTGGGACGACCAGCAACAGG

Sequence 2540

CCGCGGTGGCGGCCGAGGTACTAGTCTCAAAAGCTGGGGACTCTGAGCCTTACCTAGAGT
CTCAGCAGGTGGACCATTAAGATTAACTTTCTAGTAGGTGAGTTCAATCACAAAAATAT
TTCTTGTTCCATAGATTTTATTGTGGCCATGTCAGTGAACACCCACAAGTTTTGCTCAGA
ATATTTAGGTGTAAGCTAAATCCCTAAATTGTTGAGAGTTCCACAGCCCTGTAGCAGC
AGAGCGAGAACTTTAACCAGACTTTTTCAATCCCAAAGCTAATCTGGAGGCCAACAGTGT
TCAAAACCTTGGTGACTGAGGAACCATTTAGAGTTTTTTCAGGCTCAGGAATCACATGGG
TCGTTGTTGGGCTTGGGGTAAGTTTACAGGCGATGAAGCTTGACGTTGAGTCACTTGA
CTTCTGGAGCCATAATTTATTTCTCCAGCAACCTCT

Sequence 2541

Sequence 2542

Sequence 2543

Sequence 2544

Sequence 2545

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTCTTTTTTT
TTTTTAGTTTTGAAATCCCGTCTCTACTAAAAATACAAAAAAAAAAAAAAAAAAAAAT
TGGCCGGGCATGGNGGCGCATGCGTGAATCCAGCTACTCAGGAGGCTGAGGCAGGATA
ATTGCTTGAACCCGGGAGNGGAGGTTGCAGTGAGCCGANATCGTGCCACTGCACTCCAG
CCTGGGCAACANAGTGAGACTTTNTCGGAAAAAAGAAAAAAGATCTGNGNGGTGAA
AATAACCNAAATGAAAATAGCTTGAAAACACANGNGGGAAGCTCCCTTTTACCCTTTT

TABLE 1
415/467

TNTTCCCTTGGCCNGATGGAATCCNNNCCCTTTTTANAAAAAAGGGAAAGNCCNCTT
TTTTTTNAAAAANANTGGTTNTNAANATTTTNCNCNCCCCGGGGGGGGGGNGTTATTA
AAAAAANGGGGNCCCCCCCCGGGGNGGGGAAAATNNNTTNAATTTNTTTNCCCCCCCC
CCCCNNGGGG

Sequence 2546

CCGCGGTGGCGGCCGCCGGGCAGGTACCTCCATTGTTTCTAGGAAGTAACTAACTTGCT
TTTGATTTTACAGGCTTGTAGGTGGAATGGGCTTGCCTTGTCTCAGATGAGACTTTGGAC
TGTGGACTTTTGAAGTAAATGCTGAAATGAGTTGAGACTTTGGGGGACTATTGGGAAGGCA
TGATTGGTTTTGAAATGTGAAGATAGGAGATTTGGGAGGGACCGGGGTGAAATGATATGG
TTTCGTCTGTGTCCCTCACCCAAGTCTCATGTTGCAAGTCCCACAATTCCCACGTATTG
TTAGAGGTGATTGAATAATGGGGGTGGGTCTTCTGTGCTGTTCTTGGGATAGNGAATG
GGTCTCATGAGATCTGATGGTTTTAAAAACGGGAGTTTNTNTGCACAAGCTNTCTCTTT
NCTGCTGCCATCCATGTAANATGTGACTGGC

Sequence 2547

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGACCATGACACCA
AGCATTCTGTCCCCTCCCCGCAATGGCAATCAAGTGTACAGAAAAATAGCCTTTTAA
AATTACCATGAGCCTTTATTTTTATTTATTTTACACCCAGGCTGGAGTGCAGTGGCGT
GATCACGGCTCACTGTAGCCTCAAACCTCTGGGCTCAAGCAATCCTCCTGCCTTGGCCTC
CCAAAGTTGGNTNAGGGTTGATGAGCCACTGTGCTCAGCCAACCATGAGGTTTTTAGAGA
TGATCTTGNTAAACCCTTCTCGCCTGTTTTGCAGAAAAGAAAATTGAGATCCCAGAGAA
ATGAAGTAACTTGCCCAAGGTCATTCAGCAGGCAAGATAGAAGTAGATCCCCAAATTGCA
AACTAGCTGNCCAGAGTTCTTTCCTCAATGAGCAATTTAAAAGC

Sequence 2548

CCGCGGTGGCGGCCGAGGTACTAAGTGTCTGGGATCGTAGTCGATTAAACAGAGCCACCT
TTGTTCTTGAGGCAATGCATAAGTCAGCATTTTTCAATGACTGCTTCTTTTTGGAAGGT
TGGAGATGACTTTTATCCGCTTGCTGAGGAACACACCAATGTCATCACTGTTGCCATAGA
ACATCTTTACAGACAACATGAAGTGCTTTCGCTTGCTGAGTCAGATATATAAATGGTT
TGGCTGGTGCCATAAGTTCTTTTNTTCCAGGTTAAGCTGGCTGCATTTTNTTGGTCACT
ATTTCTATNCCAATAAATGCACACNGGTGAGACTCTTGTTCAAAAACAACCATCGCGGT
CCATTTGGTCTTTTTTTTTTCTTCCATTNCNTGGCCATAAGATATCCAAGGGGGGNGGGC
AAAAAAGTGGGAGTTATTTGTATGCCAAAAAGACACAGCCAAGAGGACTTGNGGATCAT
GCCCC

Sequence 2549

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTGGCATAAAAAAGTGACAAGTTTGTCTATGTGTTAAACATCTTAATTT
GGATGTATTTTATCCAAATGATGCATACTTGGATGCATTAAGACACACCAACAAAAA
TNCNCNCTNTAACAATAANGGGNNNTTTNNAANGGNGNCGGGGAGNGGNAACAANATTT
NGGTANANGGGANNTTNTTTTTTTTNCNAANAAAAAGAGAATTTGCTTTNTAAACAAN
AATTTTTTTCCCNCCANATTTAATTTGAAAATNTGAAAGNTATNGGAAGGACANNCNCC
AATTGGAACACNNTGTGCAAAAGTTCNANAACNAAANAAAAGATNNTTTTCTNGGTTNGG
GCNCTNANNCCNTGNAATTCAANATTTGGGGNNGGNGGNNCCCCNTTTTTTTTGGGGGG
GNGGGGGNTTTCCNCCCCCCCCCCCCCANNNNGGGGGGAAANCNTTTTTTTTTTAANNAA
AAAAA

Sequence 2550

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGAGGTACGCGGGGGGTGCTGAAATC
CGGCATGTTCTTGTCACTGGGTGAGAAGATGACAGAGGAAGAAGTAGAGATGCTGGTG
GCAGGGCATGAGGACAGCAATGGTTGTATCAACTATGAAGCGTTTGTGAGGCATNTCCTG
TCGGGGTGACGGCCCCNTGGGNGGACNNCCCCCANNGGNCNTAAANGGGTNANAACCNTT
CCNGTTTTCCCAAANGCCCGNCCCCTTTCCNTTGGGANAANTTTTTNTTCTNCCNCA
AAANGTTNCCCTAGGNTTTNTTGTNCANNAANTTTCCCATTTTGTNTNTGGGANGAT
GTTTNGCCCGTCANNTTCCACCAATAANANTTNTTTTTGGNAAAAAATNNTAAANTN

TABLE 1
416/467

NNNNCNTNNNNNNNAAAANCCCCCCCCCCCCCTATNAAAANTNAGGGCCCCCCCCCGNNN
GNAAAAATAANANTAAATTTTTTNCCCCCCCCCNCNCNGGGGGGGNGGCCCCCCCCNCT
TTTTTTTTTTNTAANNANCCCCCCCCCCC

Sequence 2551

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTGTCTCACCACATCCTGGCTCCA
GTGTGGATGCAGAGAGAGTGTGACAGAGGATCTGCCTGCGAACCACCTGGGATTAGTCAA
GTCCAAGGTGCCAGAGTGGGACTAGTTCCTCACAGTGTGGCAGCTGCACTAATCTGTT
TGTGAGGGAATATCCATTCCCTCACTCTACTCTCNTCATTATGGGAATTTNTTTTTGTTN
CAAAATAAANCCCTTTTGTATAGANAAAAAANAAAAAACCNCCCCCCCCNNTTNA
ANAANGGGCCCCCCCCNGGGGGNGNANNNTTNNAAATTTTTTTTNCCCCCCCCCNGG
GGG

Sequence 2552

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGGGATCTTTTTGGCAN
GAGCCCCAAGTAAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTCAGG
GAGGTGTGTTGGCCGGCGATGTCACGGATGTGCTGCTCCTTGATGTCACTCCCTGTCTC
TGGGTATTGAACTCTAGGAGGTGTTTTNCCAACCTTNTTATTGGGATTNTNTTTTTCC
NNCCCAAAAAGNGCCGGGTTTTTTNTCCCCNTNNNGGGNAACCCNGGGGGGAAAAAA
AAANGTGGTTCNNGGGNAAAAAANNTNTTTAAAAAANATNTTTGGNNNNN
ATTTTTTTTTGGGANAGANNCCCCCCCCCCCCCNGGGGGGGNNTNTNTNAAAGAANN
TTTNNNTTTTNCATTTTTNNCCCCNNNNNGATAAATNCCCCCCCCGNGNGCCTATATAA
AAAAAANCNCCCCCCCCCGGNNNAANAANTTTTNAATATTTTTCCCCCCC

Sequence 2553

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCTTTTTTTTT
TTTTTTTTTTTTTAAAGACGGAGTCTCGCTCTGTCGCCCAGGCTGGAGTGCAGTGGCGG
GATCTCGGCTCACTTCAAGCTCCGCCTCCAGGTTACGCCATTCTCCTGCCTCAGCCTC
CCGAGCAGCTGGGACTACAGGCTCCCATCACCACGCTCGGCTAAGTTTTGTATTTTAG
TAGAGACAGGGTTTCACCATGTTAGCCAGGATGGTCTCGATCTCCTGACCTCGNGATCTG
CCGCCTCGGCCTCCCAAAGTGTGGGATTACAGGCGTGAGCCACCGTGCCAGGCCAATA
TGAAAGTTTTTAACCTATTGGCACAANAAGTTTCATGAACCTAACAAATATTTAATTAAC
AAGTATTCTTCAATAACATTCCTT

Sequence 2554

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTT
TTTTTTTTTTTGGAGCGGAGTTTCACTCTTGTCAACCAGGCTGGAGTGCAATGGCGCAAT
TAGGGTTCACTGCAACCTCTGCCTCCCGGGTTCAAGCAGTTCTCCTGCCTCAGCCTCCTG
AGTAGCTGGGATTACAGGCATCCACCACCGTGCCAGCTAATTTTTGTATTTTAGTAGA
GACGGGGTTTTGCCATGTTGGACAGGTTGATCTCAAACCTCCTGACCTCAGGTGATCTACC
CTCCTCGGCCTCCAGAGTGTTGGGATTACAGGCATGAGCCACCATGCCAGGCTGCTAAT
TCTCCTTTTAGGNGAGTTAGGGGAACTGAGCCTCAAAAACTTAAACGATTTCTCAAAA
AACACCTCAAGTGATAAAGTGGCCACATTGNAAAGGGAGTTTTATCTTTTTATTGNNNG
CCCAGGGGTCAATTGGACAAAATCATGCTACCTNTTGGATTTAAATATTCAATTGGCAA
A

Sequence 2555

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGACTCAGAGGC
CGCCATCAACCCGCCAGATCAACCTGGAGCTCTACGCCTCCTACGTTTACCTGTCCATGT
CTTACTACTTTGACCGCGATGATGTGGCTTTGAAGAACTTTGCCAAATACTTTCTTACC
AATCTCATGAGGAGAGGGAACATGCTGAGAACTGATGAAGCTGCAAAACCAACGNNGN
GGCCGAATCTTTCTCAGGATATCAAGAAACCACTTGTNATTACTGGGAAAAGCGGGC
TTAATCAAGGGGGGTGGGCCTTTANNTTTGGNAAAAAAGGGNGAATTNATTTCTNTTT
TTGGGAACAAGNAAAAACCTGGGCCAAAAA

Sequence 2556

CACTACTATAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTT

TABLE 1
417/467

TTTTTTTTTTTTTTTTTTTTNAGACAGGGTCTCCCTNTGTCACCCAGGCTGGAGTGCAGT
GGCACAATCATGGCTCACGGCAACCTCGACCCCTGGGTCCAAGTGATCCTTCCACCTCA
GCATTCCACAAGATGATGGAACCACAGGCATGCACTACTATGCCTGGCTAATTCTTTAT
TTTTTNGNCAGACAGAGGTCTCCCTATGTTGCCCAGGCTGGTNTTGAACCCCTGGGCTNA
AGCTATCCTCCCGCCTTGGCCTCCCAAAGNGTTGAATTANNNGGAATGAGCCACTTTTTG
GGCCTNGGCCTCNANTTAATTTNAAAANGGNGTTTGNNTTNAACCNCCGCCCTTTAAA
AAAAAGGGGCACCCCCCGGNGNGGGGNAATTTTNAANNNAATTTTTTCCCCCCCCC
CCCCCGGGGGGGGGGNGCCCCCCCCCTTTTTTTTTTTTAAANNAAAAAAANCCCC
CCCCCCAAAAA

Sequence 2557

ACTNCTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACTTCTTGTCAAATT
CCTTCTTGATATGAGCCGCAATGCCCTCTCTATGTTGTATTTCTCCAGCGCCTGAGTAG
CGCACTCCACCGAGTCCTGTTGCATCTCTCCGACATGTCCGCATTTTGATCACGGCCT
TTCGGTCGCCCCGCGTACCTGCC

Sequence 2558

CTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACTACTGCTGAGGTCTNCAG
GACAGAAGNCACCTCCTNTGGTAGAACATNCATCCCTGGNCCTTNTCAGNCCACAGTTT
GCCAGAAATATCCACANGAACAAATGACAAGGCTTTTGCCT

Sequence 2559

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTAGGGGACACGGTCTATCCGCAA
GCTGNGGATTCTGCCATTCTCATCATAGTTTTGAAGCCGGGTTCTGAAATCTCATGACA
GATCTCCAGCTTGAACACGGAATGGTTTTCTAGGCCCTGCTCATAATACAGCTGCAG
GTAACCAGNGTCTGTCAGTTTGACGAANATCGGTCCCCAGTGCCTGGAGGACATGATGTT
TTTNTTCTCAGGGATCCTCAACATNATTGGCCACCCGTACGAGGCTGGGACCGTGCTGA
TCCAGGCGGGTGAGCATNTAGTTCAATCCAGGCTACTGGGTATCATCAGGTAGAGTTGC
ACTGCCAAAGTGATCAGGGTCATTAATTTGGAGTTGTTGAGTTTTCAACAGCATCAGA
AGTGNGACTGGTTTTGCTTTGAATCATCNAACTGGATGGCATCCTTGGNAGATGACAA
TGAAGGGAATNTNTTTGGCTTT

Sequence 2560

CCGCGGTGGCGGCCGCCCGGCAGGTAAGGGCCGGGTGCAGTGGTTCACGCCTGTAATCC
CAGCACTTTGGGAGGCCGAGGCAGGCAGATCACGAGGTGAGGATCGAGACCATCCTGG
CTAACACGGTGAAACCCTGTCTNTACTAAAATTACAAAAANTTANCCGAGCNTGGNNATG
GNGGCTTGNAATNCCAANTNTTCGGAAGCTTAGCNAGAAAATNGCTNAACCTTGGANGNG
GAGCTTTGANTGAGCCAAAATCCCNCCNTTGNACTCANCCTTGGGGGAAAAAACNGNAA
NTCCTTTTTTAAAAAAGGGNCCNNTCGGCCCTNTTTTAAANN
TTGGGGACNCCCCCGNCCNNNNNGGNAATTTTTTTNAACTTTTTTNTNCCCCCCCCC
CCCCNNGG

Sequence 2561

NCTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTT
TTGATTGTTATTTAGTTTTATTTTATAATCATAAACTTAACCTGCAATCCAGCTAGGC
ATGGGAGGGGAACAAGGAAAACATGGAACCCAAAGGGAAGTGCAGCGAGAGCACAAAGATT
CTAGGNTCCTGCGACCAANGGGGGGNGGGNGCCNNNNNNNCCNAAAAAANNTTN
GGGGGTTNAAAAAANCCCCNTNTTTTTTTTTTTGNCCNCCCCCANCCNNGGGGGGGG
TTTTTTTTGNGGGGGGNTTGCNATNCCGNGNANCCCAAAGCGCTCATGCCNCANAAA
NAANANTCCGNGCCTTTTTTTTNCCTTGNGNCAAAACCNCCANTGNGCTTTNGACNCCAC
CCNCTTCATTTTTGGGGGGGGGCAAAAAAANCCCGGCNCNCTTTNGGGGGGGGGG
CCNTTTTTTTNAAAAAANANNCCCCCCCCCTTTTTTTGNGANNAGGATTTTT
TTTT

Sequence 2562

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTTTTTAGGGGACACGGTCTATCCGCAAGCTGGGGATTCTGCCATTCTCA

TABLE 1

418/467

TCATAGTTTTGAAGCCGGGGTTCTGAAATCTCATGACAGATCTCCAGCTTGAACCTCACGG
AANGGTTTTTTAGGCCNTGNTAATAANNAGNTGCAGGNAACCAGGGTTTTGCNATTTG
NNCAAAAANCGNNCCCAANGNCTGGAGGACANNNTNNTTTTNTTTTNAAGGATNCTTAAC
ANTATTGGCCNCCCGTAACAAGGGTGGGACCGNCCTTATCCAGGCGGGNGGGCTTTTTAG
TTCAATCCCGGCTCTGGGGNANTANTNAGNAAAAGGTNCCTTCCAAAGGAANNGGGGCAA
NAATTGGGNGGTNNTTNGGNGTTTTCAACCCNNANAAAAGGGGGCCGGGGGGGTTTTTT
TTAAANAAAAAAAATGGGGGCNTNTTGAAAAANAAAAAGGGAANNTTTTTTTT

Sequence 2563

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCAGGTGGAGAGAGGGTGAAAGTGA
GCAGCGGGCTGGGCTGGAGCCGCACAGCTCTCCTCCCATGTTAAATAGCACCTTTAGAA
AAATTCACAAGTCCCCATCCACAAAAAAGAAAAAGTACTATTCTAGTCTTA
AGAATAAGACCNTGTTTCCAGCCAGGCGNGGGGTTGNCNCNTGTANTCCNACNCNTTNGG
GNGNTTGGGGGGGCAAAATCCGGGGGTGAGGGCATTGAGACCAGCANCCGGGGTCCAGG
CTTTGAGACCCAGCCTGGCCAACATGGTGAACCCCTGTCTNTACTAAAAATACAAAAAT
TAGTTCGGCATGGGTGGTGCACACCTGGTAATCCTAGCTACTCAGGAAGGTGAGGCAGGA
GAATCACTTGACCTAGGAGGCGGAGACTGCAGTGAGCCAAGATTATGCCAATGCACTCCA
GTATGAGTGACAGAGCAAGACTTGTCTCAAAAAA

Sequence 2564

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGAGCTC
GGATTTTAAGGCAGTAGCCTGCTGATGCTCCAGCTGAATAAGCCCTTCCTTCTACAAT
TTGGTGTCTGAGGGGTTTGTCTGCGGCTCGTCTGCTACATTTCTTGGTTCCTGACCA
GGAAACGAGGTAAGTATGAGACAGCCGAGGCAGCCCTTAGGCGGTTAGGCCTCCCTTGN
GGAGCATCCTTGAGGCGGTNTCCCCCCCCCGGGGCCCTTAAAAANANNCNCCCCGN
AAAAAANACCCCCGGGGGNNCCCNANNNAAACGGNGGGGNCCTTTTTTGGGGNNNAA
NAAAAANCCNCCCCCACCNCANNAANNACTNTTTTTTTTNCNCNTNNTNAAAAA
AAAAAANAAAAAANNTTTCNCGGGGGGGGNTTNTAAAAAANNGN
GCCCCCGNNGGGGNGAAANNTTTTTNAAAATTTTTNCCCCCCCCCCCCCGGG

Sequence 2565

GCGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGTTTTTTTTTTTTTTTTT
GCTGGTAGGAAATGCTTTAATAAAATGCAATCTCTAAGGGGCCATGGCATCATTAAAG
AAAGGATGTCATGCCAGATCCANAACCTGAAGGTGGCNGGCACCAGCAAGCACCATANT
TTTGAATNGCCTTNCCTTNCAGGGTCTTANTTTCCACNNNTGTTACTTTTTTNCNC
CTTGAAAAATGGANNAACNTGTTNCNCNCCTTGGGTTTNTTAGTNGGGAGGGAACCTT
TNGTCCANCTAAAAATNTTGNNGCGNGGGCCANTTTNGGGGGCNTTTNGTTTTTNANN
TTGGCCCCNNGGGGGGCGNGGGGGGNNCCCTTTGTTNNNCNNNTANGNNNAAAAANT
TTTTNNNTCNGGGGNAAAAAA

Sequence 2566

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGAAGAAGAGG
AAGAAGAAGAAGCAGAAGGAATGGAAAGCCTGGAGAAAGAGGATGAAATGACGGATGAAG
CAGTTGGAGACTCTGCTGAGAAGCCTCCTTCTACTTTGCCTCACCTGAGACTGCTCCAG
AAGTGGAGACCAGCAGAACTCCACCAGNTTGTGAACCCCAACCCTTCAATCAAGAAAAG
ACCTTTGATCAGGAGAAGACTTCTCGTTTCATTTTGGGGACACATTGAGGATTTCTTCAA
AAGCAGTGAGTAACATTGAACCCCTCTTGCTTCTGCTATTCTGGTCTNTCTCTNATANAAA
TTGGAANAAAACCCCCGGNCCCTTGGAGCCTTTAAATGCCAAANGNNNGCNCCTTTNAAA
ANTTAGGGNANCCCCCGGGCGGGGGGNTTTTTTAAANTTTTTTNCNCCCCCCCC
CCNTGGGGGGGGGGCCCCCCCCCNNTTTTTTTTTTTNTTNAAGNNNGNGNANANNCN
CCCCNNGGGNAAAAA

Sequence 2567

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTNCTTTTTT
TTTTNTNGNGGACTTGGGCTTCTGCCCCATATTGCANTGTTGATGTTCCAGAGTTCT
ATCCTTACTCTAAANGATCTCCATTTTGGAGCTTATCCACACAGNGGACTGTGGNTTNC

TABLE 1
419/467

GGTCTTNGNNCTTNTGCCTAGGACNTNCTTTCTAGGTANCCACATGCCTGCTCTCATT
TNTTCATGTCTTAACCTCANAGGNCACTTTGANTTAANGCTTTCTATNACTACATTNAAN
ANNGTGNGACCTTTCTNTGTCTNCCCANCTNGCCTGATNTTTNCTTNTCCATTGCACTTN
CTTNTGACTTCT

Sequence 2568

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGATT
TCCGNTGAGTGACCCTTACAAGTCCTTCTTGATCCTGAACTGGGTTAGGTGCCGCTGNTG
CTGCTCGTGTTGAATCTAGAACCGTANCCAGACATGGNACTGGAGGACGAGCAAAAGATG
CTTACCNAATCCGAGATCCTGANGAGGANGAAGAGGAAGAGGAGGAATTAGTGGATCCC
CTAACAACAGNGAGAAAAGCAATGCNAGCAGTTGNAGAAATGTGNAAGGCCCGNAGCGG
TTAGAGCTCTGTGATGAGCGTGTNTCCTCTCGATCACATACAG

Sequence 2569

CCGCGGTGGCGGCCGAGGTACATTATGTTTTCGTTTTTCATTATCTCAATAGTTTCTTCT
TGGAGATTTGGGGGAAAATGATAGACAGGAGGCAGGACTAGATTGCAGCCCTCACCCGG
ACAGACAGCAGCTCACAGGGACTCGCATCATGAACCTTGGCTCCAGAACTACTGCAGGAA
TATACCAGGAAAGCCAAGAGAATCCACAGACCCTCTGAAGGAAGCAGATTGCTCCTTCAG
GACCCAAGAGACACCCTAAATACTGTGTTGGTATCGTTGGCAGAGAAACCTCAAGACGGT
TCACATTACAGGACTCTGTGCAGACAACCCTCGGTACCTGCCC

Sequence 2570

AGGTACTACAAGAACATCGGTCTGGGCTTCAAGACACCCAAGGAGGTGCGGGGAACCTCA
GAAGAAAGAAGGGGAACCTGGCGTTTCTGCACGTGTGCCACGACGAGTTGCCCTGCCTG
CATCTAAGTGCTTCTGGGGCTGCTGGGAATTGTAGTTGCTTCCCTGAGGCCACGCCCCCT
GGCTNTTTTAAGGAACCGCCCCGCCAAGGCTCACTCCTTTATCTTCTATCCTTTTCAGG
CTATTGAGGGCACCTACATTGACAAGAAATGCCCTTCACTGGTAATGTGTCCATTTCGAG
GGCGGATCCTCTGTTAAGTGCGGGAGTTACTGGTGTNTGGGGCCTGAAATACTGAAAG
AAGGGTCTTGGGGCCCA

Sequence 2571

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCNGGCCGGGTACCCCCATNACAG
NNGNCAANCNGNCTGAGGAAGTGGCNCCTACCANGCAGGNGATCTTNCNGGAGCGGTTGG
CNGCAGNGCCNGAGTTNCAACCGTNTTNGNGCCCTGTTCAAGTNCTNACCTGANCCCATG
GCCCTCACCGNGTCANAGACGGAGTNTGTNATNCGNCTGCACCAANCACACNTTCNNCAA
CCACATGGTTTTTANNTNGNCTGCACAAACNCACTNAATGACCNTACCTTGGANAATGT
NNCAGTGCCNATGGAGCCCANTNGGCCCTATGAGGTGCTCTGTTACGTGCCTGNCCGGAG
CCTGCCCTACNANCANCCCGGGACCTGCTACACACTGGTGGCACTGCCCAAAGAAG

Sequence 2572

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNNNGNCCCQGGACGCACAGNAAANN
CNTGTNTTNGTNGGNNTNTCTATNAAAAAGGCAATCAAGAAAGATAATGTGAAAAAGANA
GGAATTNATAGGTGCGGAANANATGAATGTCAAGACATTTGAAGAACTATAGTAAATGA
TCAACACTAAATATACTNAGAGAAANCTTTGTTAATATGCCAATGAGGTNNGCCTGATCT
TTGAAATAGTGAATAGGAATNCAATGCATTTCTCAGTGATCACTGATTANGAATGAGTT
GGTNNGGATCCTTGGGA

Sequence 2573

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGGAAGCCTGGTTGAAGTC
TTTTCTTGAGAGGCCTGGATTTGTTACATATTGAGATTTCACTGGCTTTATAACAGG
TTTCTTATGTGCCTCATATTGGCTCCAGGTTCACTGGGTTTAAAAGGAGCCAAAGCACC
ATAAGGTTTTGGCAAAGGAAGAGTGGCATCTGCTTCTGGGATGTAGGCATTTCGACGCTG
CTCTGCAGTTGTGTAAACACCATTGGGCAGCTGGCGATTATCTGCTTCCAAGAACTCCTG
AGACTTTTCAGCGATGGCCAAGGCGTGCATTTCTTCATCTCGAAGGACTTTCAACCATTC
TTTCTCAATTTCTTATTGAGTGGCAGACCTTTTTCTA

Sequence 2574

TGCCGGTGGCGCCCCGAGTCCGCTTGTCCGTCTTNTCTCTGACTGNGGTACNNCGGG

TABLE 1
420/467

GCCTGTCTCTGCAGAGGTCANGGGAGGGCNGGGGCCCCAGCACACGTTCCNCAGTGGCAGC
GNGGAGCGGCAGCTTACGGGTTTCGCGGGAGCCCCGACCCCCCAAGGGCTAGAGGAGCNC
TCGGCGGACCAAAGAAAGCCCCGGAAGCGGNTGCGCGCCNACCAATAGGTGCGGGGCTCG
GAGCCNNACAACTTGCGCCGTACCTCCNTCCGCCCGCCCCGNCNCCNCCGCCGCCG
CGACTCCCCCTACTCCTGCTCCTGCCTTGGCTCCTCCGCCNAACGTNTCGCACTCCGAGA
GCCGNAGNGGCAGCGGNNCCGTCTGCCTGCAAAGAG

Sequence 2575

CCACGCGTCCGTTCCAGNCAGTTCATCCAAGGGAGAATTAAGTAGAGAAATTTGTCTG
CAATCTCANNGGNNNGACAAATCTACGACACCAGGAGGAACAGGAATTAAGCCTTTCTG
GAACGCTTTGGAGAGCGTTGTCAAGAACATAGCAAAGAAAGTCCAGCTCGTAGCACACCC
CACAGAACCCCCATTATTACTCAAATACAAAGGCCATCCAAGAAAGATTATTCAAGCAA
GACACATCTTCTACTACCCATTTAGCACACAGCTCAAGCAGGAACGTCAAAAAGAA
CTAGCATGTCTTCGTGGCCGATTTGACAAGGGCAATATATGGAGTGCAGAAAAGGCGGA
AACTCAAAAAGCAAACAACCTAGAAACCAAACAGGAAACTCACTGTCAGAGCACTCCCCTC
AAAAAACACCAA

Sequence 2576

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGCCTCCTCTATTCCTCCCA
ATCTCAAGGTTACTCTTAAATACTAGTAAATGCAAAAAGAACTTGTAAGTGGCAAGGCA
TGGCCTATCAAAAGTCAGCCCAAGGGCAGTTTTTCAGCCCTGCCTCACCTGGGTCTAGTTC
AGCTGACGGATGAGCTGATTGATGCGTTACCCCGATAGCCAGGTGTGCCCATCTCCTTG
AGGAAGCCCACTCTATTTTTGGTAGCATGACGGGCCACTGAGAGGTGGAAGGGGCACAAG
AACCATGAGATCCTCTGGAAATGCTTCCCTGGGAAGGCAATTTTCATGAATGAGGTCTTCC
AAGCAAATGACGCCAAACTTCCCAGGTGCTCCTCAATCACTGTACCTGCCCGGGCGGC

Sequence 2577

AGGTACAGAGTCTTTTGCTTCTCCACCCCTAGGGGGAAAACTGCTTTGTGCTTTGGG
AAGTTGTCTCTGAAACCCGGGGACAGAGGACGCAGGACAGACTAGGAGGGAGCCGGGAGC
TGCCCGGCGGGTCATGGGAATAACGCCGCCGCATCGCCCGGTGGCATCGTTTATGGTCG
GAACTACGACGGTATCTGATCGTCTTGAACCTCCGACTTTCGTTCTTGATTAATGAAA
CATTCTTGGCAAATGCTTTCGCTCTGGTCCCCTCTTGCCGCCGGTCCAAGGAATTTACC
TTCTAGCGGGCGCAATACGAAATGCCCCCGGCCGCTCTAGAACTAGTGGGATCCCCCG
GGGCTGCAGGGAAATTTTCGATATTCAAAGCCTTATTCGAATACCCGTCGACCTCGAGG
G

Sequence 2578

CCGCGGTGGCGGCCGCGCGGGCAGGTACCCCGAGTCCAGCGGAGACAAAGGAGTTAGAAA
GAGACAGAATAAGAGTTTAAAGGCAGGTCCAGGGGACCGGAGCGTTGGAGGCTTGCTCA
TGGCCCAGAGCTCTTTGGCTCCGCCCAATTTATTGATTTACAAGCTCTTTGTTCTTAGGG
CAGATGGGAGGGGTAGGAAGGGATGAGGAAAAGGATTAATCAGTGAAGGAGAACTCGTGA
GTCATTCAATAATATGTATAGTAGTGGTGGTTTCTGTGAATTTCTTGAGTAAAGGCGTG
TGTCTAAACTACTCAAGATCTTAACTTATCGGNATTGAAATGGATGGG

Sequence 2579

AGGTACGCGGGATAGTGAAACCCCGTCTTTACTAATTTTTGTATGTTTGGTAGAGACAG
GGTTTCACCGTGTTGGCCAATATGGTCTCGATCTCCTGGCTCATGCCTGTGGNCCCAGCA
CTGTGGGAGGCTGANGCAGGAGGATCATNTTGAGGCCAAAGAGTTCGGGATCAGCCTGGG
CAACATAGTGATACCCTATCTCTTAAAAAAGAAGAAGTTTTTAAATTTGAAATAATAANA
GGTACCTTGCCCGGGCCGGCCGCTCTAGAACTAGTGGGATCNCNCCCGGGCTGCAAGG
GAATTTGATATCAAGCCTTATCGGATACCGTCCGACCTTCGGAGGG

Sequence 2580

CCGCGGTGGCGGCCGCGGGCAGGTACGCGGGATGATTGAATTTTGTTCGCCTAAAATAGT
AATCTATAAGATATAAACTCGAGTTAGGGTTTACATTTTTTACTTATGAACACAGGGCAC
TAGGGCCACTTCAGTCTAATTTCTGCTTTTTAATTAACACTCCACAGGAGGAGG
ACTGGTTTTCTCTGTGACTTCCTAATGTATGGCAAGCAGGACTTCTTCTAATCCACTAC

TABLE 1

421/467

CCTCTTCCCCTAGCTTAACTAAGGCTTGCAGTAAAATTATAAATTTCCACTTTCTTTCCCT
ACATTCTCAAATGTAGGAAATGAGGACAAACAACCTTCTCTCTCCAATTTACAACACTAT
CAACTATTTGTCCTTTATTGTGCATTTTCAGACACAGGTGTTTTAATTGNTAATCATGTTT
TTAACTGCAGTGGATGGCAGGTTTT

Sequence 2581

CCGGGCAGGTACTTTTTTTTTTTTTGAGATGGAATTTTGTCTTTTGCCAGTCTGGAG
TGCAGTGGCATGNNCTCAGCTCACTGCAACCTCCACCCACTGGGTTCAAGCGATTCTTNT
GCCTTAGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCCGTGCCTGGCCCTGTCT
CTCTTAAGAGTAGGTTCAATTGTCTGTCTTAGAGTCACTTCTATTGCAACTCATTTTCTTT
TTCCAGGGCACAGATCGACCAAGCTGCCGGTTCCTATTCTGCAGGGACAGGGACTATTT
CTAGCATACCTGCTTTCGTCCACCCAGGCAGGGGTTTGGGGGTGGGTCTNTTCTGTGCCT
GCAGTCCCCCATTTTGACACTTTGGGTGTCNCACCCATTTTTTGGGANAATNATTTGTTT
GGGAAATGAAGGCTTCCATTGGG

Sequence 2582

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCTTTCTTTTTTTTTTTTTTT
TTTGAGATGGAGTCTCGCTCTATCGCCAGGCTGGAGTGCAGNGGCGCGATCTTGGCGCA
CTGCAAGCTCTACCTCCTGGGTTACACCATTTCTCCTGCCTCAGCCTCCCAAGTAGCTGG
GACTACAGGCGCCTGCCACCATGCCTGGCTAATTTTTAGTAGAGACGGGGTTTCGCAGTG
TTAGCCAGGAAGGTCTCAATCTCCTGACCTCCTGATCCGCCCGCCTCGGCCTCCCAAAGT
GCTGGGATTACAGGCGTGAGCCACCGCGCCAGTTGTGCATTTCTGGTTTCTAAGAATCA
AACCATTGGGCTGTTTTTAGAAGTACTTCCCATGTTATAAAGCTGAGGAAGCTTTTTT
TTTTTTTTTTTTGAGACAGAGTCTTTGTCNCCCAAGCTTGGAGTGCANTGGTGCAATCTT
AGCTCCCGGGGTTCAAGCAATTTTCTGCCTTAAGNCTTCTGAGTAAGCTAAAAATACAG
GNGGCCNCCACCCCGNTNGGCTTATTTTT

Sequence 2583

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTACGCGGGGGCACTCAG
GGAGCTCAGATTTTGAGACAGTNGCTGGCCGATGCTCCCAGNTGAATAAAGCCCTTCTTT
CTACNAAAAAGAAANNGAAAAAGAAACAGGATATCTGAAATTAAGACNGCNGATGGA
GNNGTTTCTNNAATGACAGGGNCCAAAGGNGNGACCACGGGACCAAGNGGCTGAACTGGN
ATGAAGTTAAGAAGCAGNAANAAACATCCNATAATATGGTGATCAGNTCAACAGAATGAC
ATATTNACCATGTNCCNAGGAGGNGATGACTGAGATTTCAAAT

Sequence 2584

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCTGGATAGCCTCCAGGCC
AGAAAGAGAGAGTAAGCGCGAGCACAGCTAAGGCCACGGAGCGAGACATCTNNGCCCCGAA
TGCTGTCAGCTTCAGGAATGCCCCCGCGTACTTTTTT

Sequence 2585

CGGCTGCGGCGAGCCGGTATCAGCCTNACTCAAAGGGCGGGTAATACCGGGTTATCCACA
AGAATCAGGGGAATAACCGCAAGGAAAAGAAACATGTGGAGCCNAAAAGGCCAGCAAAAG
GCCAGGGAAACCCGTTNAAAAGGCCCGCGGTTGCTTGGGCGTTTTTCCAATAGGGCTT
NCGNCCCC

Sequence 2586

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGATT
TCCGCTGAGTGACCTTACAAGTCTTCTTGATCCTGAACTGGGTTAGGTGCCGCTGTTG
CTGCTCGTGTTGGATCTAGAACCGTAGCCAGACATGGGACTGGAGGACGAGCAAAAGATG
CTTACCGAATCCCGGAGATCCTGAGGAGGAGGAAGAGGAAGAGGAGGAATTAGTGGATCC
CCTAACACAGTGAGAGAGCAATGCGAGCAGTTGGAGAAATGTGTAA

Sequence 2587

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTT
TTTTTTNGGGTATGAAAACCTTAGGGACTAAAATTAATATAAAAATTGGCATAATGTTGGA
TTGAATCTACATTTTGGCAGAAGTTAAACATTCCACATAATGTCAAAATTATACATCAT
GCAGTTCTGTTTTTTGTTTGTATTTGTTTTGTTTTGAGTCTGGCTCTGTACCC

TABLE 1

422/467

AGGCTGGAGTGCAGTGGCGTGATCTGCAACCTCTGCCCCCGGGTTCAAGCGATTCTCCT
GCCTNAGCCTCCCGAGTAGCTGAGATTACAGGTGCGCGCCACCACACTTGGCTAATTTTT
GTATTATTAGTAGAGACGGGGTTTCGGCATGTTGGCTAGGCCGGTCTCTCCTGACCTCAG
GGGGATCAGCCC

Sequence 2588

TAGGGCGAATTGGAGCTCCCCGCGGNGGCGGNCGNNGNACANAATAANGCCTGTCACATA
TTAAGTNTGTAATAACGCATTTATTACTTATCAGGGTATGATTTATGAATTGNGGAA
CCTGNGATTATGGGAGAGTCTGGCTTCAATCAAGGGCTGAAATTCATTTCCACTGACAT
CTTTTNCCTTCCCATCCCCGATTCTGCTGCAACAGGGTAACAAGAAGGGGCCCTTAG
GCCGTTGGGACTTTGATACCCAGNAAGAATACAGCGAGTATATGAACAACAAAGAAGCTT
TNCCCAANGNTGCATTNCAGTATGGTNTCAAATGTCTGAAGGGCGGAAAACCA

Sequence 2589

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAGTGTGCGGAACTCA
AATCGGCATTTAGATAGATCCAGTGGTTTAAACGGCACGTTTTTGCCTATAAAAAAGTG
CAAAAAAGATGTGGTTTACAAGTTAAAGCTACAGAATCCCTTTTTGCTGTAATTGCACCA
GTTTTAAAGCCTCTGGACAGAGCAGTATTTTCTTTTAAACCTTTGTTTTCTTAAAGCTT
ACAGTGTTTGGCTAATTCTCCTCCCCTTTTTACAAGACGGGGGCGGAGGGTGGACACTG
GTGGCAGGTTAAGGGATACTGTCACTTTAAGAAGCCTGCAGATTGAAGTGTAACATGGA
GAAATTAGGGGCTGATTTTTTAACTGTGTGAGATTTAACCAGCCGCCCTGTTATAAAA
TCAGGGAAATCCAAACAGCGATTTACACCCGATTACACCCCTTTATATATTTTTTACA
AAAATACACTGGGGAAAATAATCNAACCGNTTTCATCTCTCTTGGCTTTTTTGGTTTTT
AA

Sequence 2590

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTCTTTTCTTTTCTT
TTTTTTTTTAATGTGAGACAGGATCTCATTCTGTTGCCTAGGCTGGAGTGCGNNGGCGCA
ATCTCGGCTCACTGCAACCTCTGCCTCCTGGGCTCAAGCAATTCTCCACCTCAGCCTCC
CAAATAGCTGGGATCACTGGCACAACACCAGTATGCCCAGCTAATTTTGTATTTTTGTAG
AGACAGGGTTTACCAGTGTGCTAGGCTGGTCTCAACCTCCTGGGCTCAAGCAATCCTC
CTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGATGTGAGCCACCGCATCCAGCCCCACA
CCCTCATTTATACCAATTACCTGCCAGTAAGTGTGGACTTTTGTCTCCTCACCCTGCT
CTGATCTGGAAGGAGAGGGATTATGTTATAGCTTGTGAGCACAAGTCCCAAGTTCAATAT
TTCTGCGGCAAAAACCTTCTTCAAAAAATAAATGTAC

Sequence 2591

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCCTCTTCCCGCTGAAG
GGAAATTCACAGAAGCTATAGTTGATGCAGAGCCGAAATATCTGATAGTTGNGCGACCTG
CTCCACCTCCAAGTCAAAAGAAGTCATGTTCAAGGTAAACTCGTTCTCGCAAACCTCTGC
AGCTGGTGGTTGGCACTCTGACACCGAGCTCGGTCTTCTGTCATGGGGTTTCTCATCA
ACCCACACCATGACTGGACATTGCCAAGTCACTGTCCAATGACAGATTTTATACAATTC
GCTATCGAGAAAAGGATAAAGAAAAGAAGTGGATTTTTCAAATCTGTCCAGCCACTGAAA
CAATTGTGGAACCTAAAGCCCAACACAGTTTATGAATTTGGAGTGAAAGACAATGTGG
AAGGTGGAATTTGGAGTAAGATTTTCAATCACAAGACTGTTGTTGGAAGTAAAAAGTAA
ATGGGAAAATCCA

Sequence 2592

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACGCGGGGGCTG
ACTCCTTTTTCGGACTCAGTCTGCCTGCACCCATGTGATTAAAAAGCTTTATTGNTCACA
CAAAGCCTGTTTGGTTATCTCTTCACACAGACATGCGTGACACTTGGTGCTGAAGACCCG
GGATGGGGGACTCCTTCGGGAGACTGGTCCCCTGTCTCACCCTCACTCCATGAGGAGAT
CCACCTACAACCTCGGGTCTCAGTCCAACCAGCCTAAGGAACATNTNACCAATTTCAA
TCAGATCTTGGCTTAGTGGCTGAAGACTGATGCTGCCCAATTACCTCGGAAGCCTCCTGG
ACCATCACAGATACTTTGAGTAATCTCTTATAGTGGAAGGATGCAAAGTTGGAATAA

Sequence 2593

TABLE 1
423/467

CCGGGCANGGTACCATATGTTTCAAAGTAGCTGTTTCATCCACAGATAAAGAGATCAAGAA
ACTCTCATATACATACTAGGAAATATTCTCCAGCCATCAAAATAATGAAGCAGTGTCA
TTTAGAGCAACACAGATGAACCGCGGAGACCTGCCTCCTACTCCACCATCACATGGAACC
CACCCTGCTTCTCCGAAGCTCGCTCTGACCACGCCGCTGCTGCTGCAGGGGGCCTCGCAG
GAAGTGCAGTCTCCCCCGCGTACCTN

Sequence 2594

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGGTATGTTTTGTCTTG
AAAAGAGGTTTTCTAGCTAGAAATTCGGGGCCCAGAAGGTCAAGGCTCCAGAGATCCCCT
TCTCATCATCCTTCAGTTGTCTGAGGAGACAGAGGATCACATGTGTACAGTGAGTGCTG
ATTCCCCAGAATCTGCAGTCTTAAGCTCCCCTGCTGACGCACACAGCCAGTTCTCTGCTT
CATATTCATGTGACCCACTGTGAAGTGACAGGCAGCTGCCAATTCTGTCATATAAGAAGC
AGCTCTGCCCATGCACTTTGAAAGTTCCTGCACTTCTCCATAGACTGCTCCTTCATGGA
AATAACACATCATCACTGTGGGTGCCTAAGCTAAGTTTGTTCAGTTTGATGATGC
CCAGCTCCTTTTCAACTCAGCCTTAATTGGCACTTTA

Sequence 2595

CGAATTGGAGCTCCCCGCGGTGGCGGCCCGCGGCAGGTACTTTTTTTTTTTTTTTTGA
GACAGAGTCTAGCTCTGCGCCAGGCTGGAGTGCAGNGGCACCATCTCGGCTCACTGCAA
CCTCCACCTCCTGGGTTCAAGCAAGTCTCCTGCCTCAGCCTCCTGAGTATCTGGGATTAC
AGGCACATGCCACCACGCCCGGCTAATTTTTGTATTTTAGNGGAGACGGGGTTTCACTT
GTTGGTCAGGCTGGTCTCAATCTCCTGACCTCGGGATCCATCTGCCTGGTCTCCCAAAG
NGCTGGGATTACAAGGCGTGAGTCAACCGTGCCCGGCGAGAAGCAACTCTTAAATACTTT
ATTCCTTCTCTAGGACCCTTTAAATGGTGAAATGGGCAGATGAGTAGCAATAAGTGGA
CCTTTGTTACTCTTCTGAGTTAGAAAAATTCTAATTTAAGTACCTCGGCCGNTCTAAAC
TAAGTGGATCCCCCGGGC

Sequence 2596

ATTGGACCTNCACCGCGGTGGCCCCGCCCGGNANNAACCATAAACCGTNGCAGNCTCAGC
ANATATTTTCCCTTCTTAAGTCAGTAACCTTTACCTTTTCACTTACAGGAAGCACTTTA
CGGCTTCTCTTTAGCATATGCAAATTGCCAGCATTACCACTCTTGGACTTTGGGGCCACT
GTTAAGTAAAGTAAGGGTTACTTGAACATAAGCACTGTAGGCCGGGGCATGGTGGCTCAC
GCCTGTAATCCCAGCACTTGNGGTAGGCCAAGGTGGGTAGATCACCCGAGCTCAGGGAGT
TCGAGGACCANCCTGGGCCAACATGGTGAAAACCCCACTTTACTAAAAATACAAAAA
TTAGCCAGGTTTTTGGTGGGCTGTATACCTGGNGATGCGCANCCTATTCAAGGAAGGGCT
ANAGGGCAGGGAGAAATCGCTTGGAACCTGGGGAGGCCGNGANGTTGCAGNTGAGCCCAA
GAATCCGTGGCCCACTGCACTCCAANCCTGGGGTGACAAGAAGCCGAGGACTCTGNGNCTC
AAAAAAAAAAAAA

Sequence 2597

CCGGGCAGGTACTTCTTGATTTTCATCATACAAGACAAGCACAAAAGCACCACCCATGCCT
CTGAGAACATNGGACCATGCACCCTTGAAAAAGCTTTGCCTNCTTCATCACGAGCAATC
TTCGCCAGCAGTCAAGCCGTGCCTGTGTACAGATGGGGTTTTGCCATGTGGACCAGGCT
GGTCTCGAACTCCTGGCCTCAAGTGATGCACCTGCCTCGGCCTNCCGAAGTGCTGGGATT
ATAGGAGTGAGCCACCACGCCCGGCTACAGAGTTGGGTTTTAACAGAAGAGGACCTTGAA
TGCTGAAGCTTNACAGGGCGGCCAACTAACTCGCTGATTTTTGCAAGACCACAGTGTA
AGGTCGGATGTCCACCTGAAGAAGGGGTGGGTGCAACTCTCTGGGTGCTGCACACCCAT
GACCAAGCCTGGGCATGCAGCACCCAGCTCCCATNCATTCACTGTTGCTTTGTGAG
GTCATTTTGAGAGGGCTTTCANAGCCTTTTAATGAGAA

Sequence 2598

AGGTACCTTTGACCCATCATCTTGGGAGGTGGGGAGGACCNCGAGGGNCCAGGCAGGGTG
TAGGGGAATGTATTAGNCCAANGAGATTTCCCTCTTCATCCGCAGCAGNGTATCTATTCT
ATACCTGGCTATGGGAGAAGACCCCTTGCTATGGGAGGGACCCCTTGCTATGGCCCTTTA
AGCCAGGCAGTGGGGATCTACCTGNGGCCCGGCTCCCTAAAGTCATTACATTGAATG
GGGGGATGAAGGNTCGGGACAGTGGCTCATAAGAGCCCGAGTATTGAGCCCTAANCTGTG

424/467

Sequence 2599

Sequence 2600

Sequence 2601

Sequence 2602

Sequence 2603

CCGGGCAGGTACGCGGGGGGCATATCAGATACGAGGGCACCATGTAGCACAGCTGGACCC
CCTGGGGATTTTGGATGCTGATCTGGACTCCTCCGTGCCCGCTGACATTATCTCATCCAC
AGACAAACTTGGGTTCTATGGCCTGGGATGAGTCTGACCTCGACAAGGTCTTCCACTTGC
CCACCACCACTTTTCATCGGGGGACAGGAATCAGCACTTCCTCTGCGGGAGATCATCCGTC
GGCTGGAGATGGCNCTACTGCCAGCCATATTGGGGGTGGGAGTTCATGTTTCATCAATGGA
CCTGGAGCAAGTGGCCAGGTGGGATCCCGGCAGGAAGNTTGNAGACCCCTGGGATCATG
GCAGGTTCAAAATGGAGGGAGGAAACCGGACCCTGCCTGGGCCAGGCTTGCGCGGNTC
CACCCAANGTTTNGAAGGAAGTTTNTACAGCCGGAAAGTGGGNCCCTCTGANGAAGCCG
CTTTTGGTTCTAAGAAGGCTGGCGGAGGGNACCCTTCGGCCCCGCTTCTAAGAACTAGNTG

TABLE 1

425/467

GGATCCCCCCCCGGGCTGGCAGGGAAATTCGGATATCNAAGCCTTATCGATACCCGNCCGA
ACCTCGANGGGGGG

Sequence 2604

CTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAGCGTGGAGGGTTTAGGCAGCGTGTCT
GATTCTTTGCGGGACGGCGAGCGCATTTGTGCTTTGCCCGCCGCGGCCTAGGAGGCCTTT
TGAGGCCGCGTAGTCGGTGTTTTGAACCTACTCTACAGCTTCTGGCAGGCCGTGCGGCG
CCCTGACCCGGCCTCACCATGTTGGTGCTGTTTGAACGTCTGTGGGTACGCCATCTTT
AAGGTTCTAAATGAGAAGAACTTCAAGAGGTTGATAGTTTATGGAAAGAATTTGAACT
CCAGAGAAAGCAAACAAATAGTAAAGCTAAACATTTTGAGAAATTTGAGGATACAGCA
GAAGCATTAGCAGCATTACAGCTCTGATGGAGGGCAAATCAATAAGCAGCTGAAAAAA
GTTCTGAAGAAAATAGTAAAAGAAGCCCATAAACCGCTGGCAGTAG

Sequence 2605

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTGGGTCTGAAGGGGTAC
TCAAGCGCTCTGCTATCTCTGCAGCTAAACGGGTGTCAGGTTTTAGCTGCTACTAAAG
ATAATGAGCATAAGCGTTCACCGACCAAGACTCCAGCCAGAAAGCCTGCACATGTGACCG
TGTCTGGGGGCACCCCAAAGGCGAGGCTGTGCTTGGGACACACAAATTAAGACCATCA
CGGGGAATTCTGCTGCTGTTATTACCCATTCAAGTTGACAACTGAGGCAACGCAGACTC
CAGTCTCCAATAAGAAACCAGNGTTTGATCTTAAAGCAAGTTTGTCTCGTCCCCTCAACT
ATGAACCACACAAAGGAAAGCTAAAACCATGGGGGCAATCTAAAGAAAATAATTATCTAA
ATCAACATGTCAACAGAATTAACCTNTACAAGAAAACCTTACAAACAACCCCATCTTCGGG
ACAAAGGAAGAGCAACGGAAGAAACGCGAGCAAGAACGAAAGGAGAAAGAAAGCAAAGGT
TTTGGGAATGCGAAGGGGCC

Sequence 2606

CCGGGCAGGTACTTTTTTTTTTTTTTAAACATCTTTGTTTTTAAATAGAATGATAGAAC
TTTGCCAGTCTTTAAGATCTTGGCTTAATTTAATGTATTAATCTGTTTGTGCAACATAA
TACCACCATTTAAAAATGTTAGGGGGATGAGTTGCAGTTTTTATAATAGATTTTTTTTTA
AAGTTTGGTATTGTAAACATTACACCTCTGTCCCTCAAAATTGATAATTACCGTTTAA
AGNGCAGNCATTTGNGGTNTAGAAATCTGTTTTGTTTTGCTTCCATTATTGAGTTCCTC
CTAAGGGAAAATTGGAGGAGAAGGGGACTGGAATATGAAAGCCCCAAATTCATATAAAAA
AGTTTGCAGTTNTAAGGTTTGTATTAATAAATAGNATATTATTAANGAAAAAATTTTTT
TCACTTGATGTTTTGGTTAG

Sequence 2607

ATATGGGCGAATGGACTCCCCGCGGTGGCGGCCGGGCAGGACTTTTTTTTTCTTTTTTT
TTTTTTGGAAACTTCTTTTCTTAGTTGTTGTATTCTTGAAGAGCCTGGGCCATGAAGA
GCTTGCCTAAGTTTTGGGCAGTGAACCTCCTTGGATGTTCTGGGCANGTAAGTGTTTATCT
TGGGCCTGCAATGAAGCCAGCCGAAGTCCATCCCTTGGGCAAGGGCCGGGCTTGTGGTG
GGTTTTTGGAAAGAAGTTTGGGACCAAGGGGTCTCCTCAAGGGGGAAGCCGGGGGGGG
GGTCTTCCCTCGGGCTCTNNGGCCGCTGCCATATTTCTCCTTGCCTTGGGCCGAACC
GCCTGCTTGAATACCTTGAATTGTTTTCTTGCCTTGCCTTGGTTGTTTACCTAAGGANA
TTTCCCTCAATGGTAATGTGGTTTGGTAATTTTAAACCTAATAATCCTTTGGGCTCAATT
TTCAATCCCACCTCTTGTCCAATCAAGCAAACCTTGNTAANGATTCTTCCCCCAAAATN
GAATTTGGCTGGCTTGGGCAAAGGGCCTTGAAGCAAATTCNATTGGTTTTAATCTTGCAA
ACAAGCCTGAACCTTCTTTTTTCAAGGGTCCCCACCATTAAAGGGAACATTTTNAATCA
AGGATGTGGAAATT

Sequence 2608

CGCGGTGGCGGCCGCCGGGCAGGTCAAACGATGTGTCCGTGATGACTGGTGGGGCTCATG
TAATCCCCACCTAAGAAAAGTAGAAAAGTGCAACTTTATCTTTAGGTTAATAAGTGCTGA
GAGATGGAGGTTTTCTTCTCATTTTGATGGAGATGCCTAGAAAACCTCGCCTGACACT
CTTTGTCCAACGCAGGATAGAGAACATAGCAACAGAAAGGGTGAGGCAAAGGCATGGCT
GGTNAAGGCACTGCATGTTATTAAGGATGNGGGGCCCTGGTCTGTTGNTTCACATGT
TTTTCTNTTTTTATACAGAAATAGGAATCTACCAGACAGTAATAAATGCCACTTCTCAC

TABLE 1

426/467

AGAAAGTCTGACAGGCTTCCACTGCCTCTGAGAGAACAACAACATGTTGGCTCCATAACA
TAAAGAAAAACAATGCTGGGTGCGGTGCGGTGGCTCGTGCCTATGATCCCAGCACTTTGG
GTGGCTGAGGCAGGAGGACTGCTTGAGCACANGAGTTTGAGACCAGCCTGGCCAACANGG
CGAAACCTTCTCTNCTACTAAAAATNCAAAAAAAAAAAAAATTAGCTG

Sequence 2609

TCACCGCGGTGGCGGGCGGCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTGTG
GAGACAAGGATCTTGCTCTGTCAACCAGACAGATGTGCAGTGGCATAATCATGGCTCACT
GCAGCCTCAACCTCTGGGGCTCAAGCAATCCTCCTGCCTCAGCCTCCCAAGTAGCTGGGA
CCACAGGTGTGCACCCCCACTCCTGGCTAATTTTTTTATTTTTTGTAAAGATGGGGNCTT
GCTATGTTNCCAAGGTTAGTCTNAACTCCTGGGGTCAAGCGATCCTCCTGCTTAACT
NCCAAAGCACTTGCGATTGAGNGTGAGCCACCAAGCCCAGCCCCAGCACCCTTTTAACT
TAGCTGCATAATCTTGGGTAACTACTAACCTTTCCAAAGTACCTCGGCCGnnnnnnnnnn
nn
nn
nn
NATTGCCCGCTTGGNGNAA
TCATGGCAAAAGCTGTTTCCGGGNGAAAATGNTTATCCCGTTACAATTNCCNAAANATAC
NAACCCGGGAGCNTAAAGNGTAAAGCCNGGGGGGCCANTGGGGAGCTAACTACAATTAAT
GNGTTGGGCTACTGGCCNNTTCAATGGGGAAAACNGGNGCCACTTNNTANTGAATCGNC
ACCCCCGGGGGAGGGGGTGGTTTTGGCCTTTTCTTCTNGTAATANTNNTNGCCGGGGT
NG

Sequence 2610

GCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACAATGAGATGGATACAATTAGTNAAAC
CTTAAATTAATAAAGCTGTAGACAACAGAAGGNAACTGGAAATCCATTTACAATTCAA
AAGAACTCACTAATAACAAAATTAATGTTTCACTCACTTCATTTATAATCCATTNNGCCT
ACATNGCNTAACTAAANTGACACATGTCCCCGGGGGCTGCAGGCGTNGCNCCTTCTCG
CTCTGAGGNGCTNTCTTAACCGNNANACCCTGGAAGCGGGCAAGTCTTGTGTGTGCGG
GACCTTGACAGNCCCTGGCCCTTCCGCCACCATGGGAATACCTNNGGCGCTTCTAGAACTA
GGTGGGATCCCCGGGCTGNAGGGAATNCNNTATCANGCTTATCGATNCCGTCGACCTTG
AGGGGGGGGGCCCG

Sequence 2611

CCGCGGTGGCGGCCGAGGTACCAAGTGTGGGAAGATGTTGAGCAACTGGAACCTCATGCGT
GGCAGGTAGGGATGTAAATGGCACAAAGACTTTGTAAATACTTTGGCAAATNNNAAA
AAGNAAACACATAGCTACCATACAACCCAGCCATCCCACTCCAGTATTTAACCAGGTGA
AATGAAAACCTTATGTCCAAACAAAGACTTGTACTTTTCTATGATGACCCGGGCGGCTTC
TTTAACGNTTTTNGGTGCGAACCGCNGCCCATGTTGGCGGGTCTTGGTAAAAGACCCCG
CGTCCTGCCCGGGCGGCCGN

Sequence 2612

GGAGCTCCCCGCGGTGGCGGCCCGAGGTACANGAAAGTCTAGATGATCTTGTAGTGCCAG
AAAGTAAGAAAGTAATAAAAAGATGACAGGTCTGTCAATGATACAGAAGCCAATGTGA
CAAAGCTCTCAATAGTTAAATCTCGAATTTGAGTAGTAAAAGTGACACAGTTTTAGATTA
TAACCCAAAGAACTAAATAAATATCCATGAGCCCTATTGATATAAATGACAATTAAGGGT
TTTTGTGTTGGTTTTTTGGTTGCTTTGGTT

Sequence 2613

GAAACCTGTCGTGCCAGCTGCATTTANTGAATCGGCCAACGCGCCGGGGAAGAGGCGGT
TTGCGTATTGGGGCGCTCTTCCGCTTTCCTCGCTCACTGACTCGCTTGGCTCGGGTCC
GTTCCG

Sequence 2614

GGAGGCGGCCGCGGGCAGGTACTTTGTTTCTTTTTTTCTTTTTCTTTTTTAAGACA
TGGTCTTGCTCTGTTGCCAGGCTGCAATGCAATGGTGCCACCTCGGCTCACTGCAANCC
TCGACCTCCTGGGTTCAAGCAATTTTCTGCCTCAGCTTCCAGGTAGCTGGGATTACAGG
CGCCCGCCACCAACACAGGCCACATCTATGTATTTAGAGACAGAGTCTTGCTCCACCTGG
GAGACAAAANCNGACCTCGGTTTAAAAAAAAAAAAAAAAAGGGAAAGGAAAGGAGGAATTT

TABLE 1
427/467

TTGAACCCAGTGCCCGTTCTTGCAGATCTGCGAACAGTGGGCACCAGCCTCTAGTCTCA
AGTGTGAGGTTTGACTCCAGGACGNTGAATTTA

Sequence 2615

CGCGGTGGCGGCCGCGGGCAGGTACGCGGGTGCTACACGGAGGATGAAGCTAAGGAGCT
GGCTGCGGAGGTGGAGGGTTCAAGACGGCCCAATGAAGATGGGGAGATGTTTCATGCGGC
CAGGGAACCTTGTGACTATTTCCAAAACCATACCCCAACAGTGGAGGGCTGNTNGAGNT
GCCAACACGGAGCNTNGCCCCCTGACCTCAGCTACATCGTGCGAGCTAGGCATGGTGGN
GANGACTTCCNTTTTTTTCCTTGTTNACGGGCTNTTTTGAACCNCCCCCGGNNTTTTNT
NTGGGGNAAGGGTNTTTATTA AAAANCCNTTTTTTNCNGGCAAGCCTTTTGANATGGNC
CCNCCTTTNAACAAATTTTTTTANNTTTTTTNGANGNGGGCCCCCATCTTNCTNTGTT
CAANATAAGCCAAGGGTTGTGTGCNCCTTCTGCCGCTGGGCATTTTGANCCAGAACNCCA
CCATAAAGAACGNTGGGCTAAANATTGTTNATAATGATGGNTTTGGGGNNNCCCTNTC
TANAANATAAAGGGGGACATGGGNTTTTTCTGAAAGGNGGNATTTTTNTCCCCCAT
TNAAAAAATGCNCCCCCGGGGGAAAAAATTTTTTTTTTTTTTCCCCCCCCCCCC

Sequence 2616

CCCGCGGTGGCGGCCGGGTACATTGCTATTTTTCCACCTATGTCCACACCTTCTCATGAA
CTTTCAAAGTCAGAGGCAGNTACCAGTGCCATTAGAAATACAGATTCAACAACGTNGGAT
CAGCACCTAGGAATCAGGAGTTTGGGCAGAACTGGGGACTTAACAACGTTCCTATCACC
CCACTGACAACCACGTGGACCAGTGTGATTGAACACTCAACACAAGCACAGGACACCCCTT
TNTGGAACCGATGAGTCCTACTACGTGACACAAGTCACTCAAAGATCAAACATCTATCCA
GGCCTNAGCATTCCCTTTCCATCTTACTGGAAGTCTACCTGNGCTCGGGACACANGGGAG
AAGCTCTNTTGAGGCACCACTTTTTGGGAAACCATCTACAGACACACTGTCCAGAGAGGA
TTGAGACTGGCCCAACAAACATTCAATCCACTCCACCCAT

Sequence 2617

[illegible]

Sequence 2618

CCCGCGGTGGCGGCCGGGTCTTTAGGATGCTGGTAAACTATGGAATTTAGACGTGGACA
TCTGGCAGACATTTTCTTTAAATGAATAAAGTGAGCTTATCACCTCAAGGAAAAACAAC
NAAGCCATCTGTTGCCAATGATAAAAAATATGAGATTTAAAAAATGTTGAAGNTTCAGGC
TAAATTTAAATTTTGA AAAACTTATATTGGCCACCACANGTTTGACACCTTACCAATTA
TTAATGGGANGGTTTTNTTAAGAGGNCAACAGTGATNTTAACAAATGTGGGTTTTTTTGN
TNTTGGNTTATTGGGAGGTTTANCNATTGGGAAGATCTGTAAGACTCAAGNGAACCATGG
NTNTCCAAATGACTAAGACATGATGGNTACAAAATCACCCCTGGGTAAAAGATCCATTCA
AAGTGCAGGACAGACCAATGGAATTTAGTGTAACAGAGGTNTGAAAGGTTTCATGAAGGCT
GGGCATGGTGGCTCACGCCTGTNATCCTAGCACCTGGAGGGCCCG

Sequence 2619

CTCCCGCGGTGGCGGCCGGGTACTTTTTTCTTTCTTTCTTTTTTTTTTTTTTTGAGA
CGGAATCTTGCTCTGTACCCAGGCTGGAGTGCAGTGGCGCAATCTCGGCTCACTGTAAG
CTCCACCTCCC GGTTACGCCATTCTCCTGCCTCAGCCTCTTGAGTGGCTGGGACTACA
GGTCCCCACCACCACGCTGGCTACTTTTTTTGTATTTTATTAGAGACGGGGTTTCAC
TGNGTTAGCCNNGAATAGGNTCGATCTCCTGCTTGNGATCTGCCCCCTTGGCCTTCGA
GCCCTTTTTGACCTNAAGGACCAGCACTGGAATAATGTTTGGGANNCCCNCTGCTTTTINAG

TABLE 1

428/467

GCAGGCTTAGGGAGCAGGAAAGCATACAGGTGTAGCAGCCTTTCCAGCTGATCCCCATGC
CCTGCTGCACCTGGAGGGCTGGAACAAGCTATTCTCATATTGGGGAAAAGGGCTGA

Sequence 2620

CTCCCGCGGTGGCGGCCGGGTACTTNGTTCCTTTCTTTNCTTTTTTTTTTTTTTTGAGA
CGGAATCTTGCTCTGTCACCCAGGCTGGAGTGCAGNNGCGCAATCTCGGCTCACTGTNNG
CTCCACNTCCCGGGTTCACGCCATTCTCCTGCCTCAGCCTCTNGAGTGGCTGGGACTACA
GGTGGCCACCACCACGCCTGGCTACTTTTTTTGTATTTTTATTAGAGACGGGGTTTCAC
TGNGTTAGNCCCGGANAGANTNGATCNCCTGACCCTGGNACTGGCCCCCTTGCCCTCT
AACCCTTTTTGACCCCTAAGGGAANGTACTGGAATATTGTNTTGGGNNCCCATGCTTNTG
NGGCAAGGCTTAAGGGAGCAGGAAAAGCATACANGGTGTAGCANCCTTTCCAGCTGATCC
CCATGCCCTGCTGCACCTGGAGGGCTGGAACAAGCTATTCTCATATTGGGGAAAAG

Sequence 2621

NCCGCGGTGGCGGCCCGCGGGCNGGACCTGTTTTATCCCAGCTGAGAGGCAAGGAGAACC
TTTGTCTTAAAAAATAAGCTGGTTTCAGCCAGGTGCGGTGGCTCACGCCTGTAATCCC
AGCTCTTTGGGAGGCCGAGGCGGGCGGATCACCTGAAGCCAGGAGTTCGAGACCAGCCTG
GACAACATGGTGAGACCTTGTCTTTATTAATAATGCAAAAATTTGGCCAGGCGCCGNGGC
TTTACCCCTTATTCCCAGCACTTTGGGAGTCCCANGCAGGTGGATCACAAGGTCAAGAA
ATTGAGACCCTTCTTGTTACACCAGGGAACCCCTTCTTCTTAAAAATTTNTAAAAAC
CAAANTTGCTGGCATGGNNGGGGGCACCTGTAGTCCTAGCTACTTGGGAGCCTGAGGCANG
AGAATGGTGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCGCACCCTTGAC
TGCAGCCTGGGGGACAAGAGTGAGACTCCCTCTCNAACANAAACAAAACAAATTNNCC
NAGCGTGGTGCGAGGCCCTTGAGGCANGANGAATCACTTGAACCCCGGGG

Sequence 2622

GGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGANGACCTTAGAAAAAGGAG
GAAAGGAGGAGAGGCAGATAATTTGGATGAATTCCTCAAAGAATTTGAAAATCCAGAGGT
TCCTAGAGAGGACCAGCAACAGCAGCATCAGCAGCGTGATGTTATCGATGAGCCCATTAT
TGAAGAGCCAAGCGCCTCCAGGAGTCAGTGATGGAGGCCAGCAGAACAAACATAGATGA
GTCAAGCTTTGCCTCCCCCCCCCTTAGGGAGTTAAGCCAAAAGCTGGACAAATTGCCCA
GAGCCTGTGATGCCTTCTTAGCAGGGAGAGCAGATGGAAATCCACCTTGATAGAGGCTTCC
CCAGAAGAACCTCCAAATTCTGTGAGCTNATACCAGAAGTTAGAATTCTGCCAGAAAAA
AAAAAAAAAAAAAAGTACCTGCCCC

Sequence 2623

TGGAGCTCNCCGCGGTGGCGGCCGAGGTACTTCNTTTTTTTTTTTTTTTTTTTCTTATTT
AGGGGAGAACTTTTACCTTTTCACTTAATGCATTCTCTTTGGTGTATCTGTNTTNGNG
CAACACTACTCTTGCTCTTNAGGGCCATTAANTAAAATAAGAGTTACTCAGGCTGGGTGC
AGTGGCTCATGCCTGTAATCCCAGCACTCTGGGAGGCCAAGGCGGGCGGATCATGAGGTC
AGGAGTCAAGGGCAANCCGGCNAATNNGGGAAACCCCAANTTTTTCTAAAAATACAAA
ATTCNTCCNGGCAATGGGGGCGNNATGCCTNAAATCCCAANANACCCTNAAAAGGCTNNG
GNCNGGGAAAANTNTTTNTAANCCAGAANCCCCGGGNGGNGGNGGNGNTGNANATANGCC
CAATANNCCCCNTTNNCNTNTNCCCCGGGGGAANNNTTGAANNCTTTNTNTNAAA
AAAAAACNAAAAAGGNTNTCNCTNTNCCCCCNGGGNAANNNGANACCTCTTTTTTT
CTCCNCCNNTTTCTNCTGGGGGGGGGGNNGAATNTTANTAAAANAANCCNCCCCNNGGN
GANANAATNTNANTTTTTTTTACCCCCCNCGGGG

Sequence 2624

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACATACTGCTTTGATTGATAT
ATACAAAACACCACCTNCTTTTGATGGAACGGGGGCCAGAGCAGATCCTGNGATGAGG
ATTAATGTGCAATTCATGTAATNTATANCAGTNTTCAGGANGTGCTCACAGGATAAAC
CAATGAGGGAGNNGGTTTCAGGGGCGNGGACAGGGAAGGGAATAAAGTNGCAAGGGACNN
TTTNNGGGCANGGNNCGGNCTTAAGCCTANTCCCGTTGGGAGCTCTGGACATACATNAGG
CTTCAAAGNTNGGNNCAACTGGGNGCAAAAAACCTGGGCTGTTTATGCCTGCACCCCTT
TAGGCACCCTAAGCCCTACTTTGAAGTNTTTATTTAGCTCTCAATGTGTGAACCTATA

TABLE 1
429/467

AGGAAATTAACGTTTCATGAGTTAAG

Sequence 2625

TCCCCGCGGTGGCGGCCGAGGTACAGATAATTCAAATCTATTATCTAATGTATTAGGTAA
ATTTCTATTTGTTCTATACTTTTTTTTTTTTTTTGAGATGGAGTCTTGCTNNGTCGCCCCA
GGCTGGAGTGCAGNNGTGCAATCTTGGCTCACTGCAAGCTCCGCCTCCTGGGTTCATGCC
ATTCTCCTGCCTNNGCCTTCCAAGNAGCTGGGACTACAGGTGCCCCGCCCCGACACCTGGC
TNATTTTTAAAAAATTTTTAGTAGAGACAGGGTTTACCGGGTTAACCAGGATGGNCTC
NATCTGTACCTCGGGATCCCGCCCNNTTGGGCCTCCAAAAGACTGGGGATTACAGGGCG
GTGAGCCACCGACCCGGCCTATTGACATTTTTTAAGGGTCAAGATTTTCTTTGTGTGTC
TAGTAATTCGTCTTTTATTGCAAAGATAATTTGCTTATTNGACTNAGAAAAATGATTTGT
GGGCATACAATATTGTATGTGGTACCTGCCCGGGCNGCCGCTCTAGAACTAGNG

Sequence 2626

TTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGATAATTCAAATCTATTATCTAATGTAT
TAGGTAAATTTCTATTTGTTCTATACTTTTTTTTTTTTTTTGAGATGGAGTCTTGCTCTG
TCGCCCAGGCTGGAGTGCAGTGGTGCAATCTTGGCTCACTGCAAGCTCCGCCTCCTGGGT
TCATGCCATTCTCCTGCCTNNGCCTTCCAAGTAGCTGGGACTACAGGTGCCCCGCCCCGAC
ACCTGGCTAATTTTTAAAAAANTTTTTNAGGAGAGACAGGGTTTCACCCGTGTTAGCC
AGGATGGNCTCGATCTCCTGACCTCGGGATCCCNCCCNNTTGGGCCTCCCAAGGACTGGG
GATTACANGGCGGTGAGGCCACCGCACCCGGNCTATTGACATTTTTTAAGGNTTCAGATT
TTCTTTTGNNGTCTAGNAATTCGTCTTTTATTGGCAAAGATAATTTGCTTATTGACTT
AA

Sequence 2627

GCTCCCCGCGGTGGCGGCCGNGGTACAGATAATAACATCTGATATCCACATGGGGTCTGG
AGGTGCNAGCCACCTTCCTTTCATCCACGGTCTCACAGCAGCCCTGGAAAGAGGCTGCT
CTCTGTTGGAGGCTAAGGGCCAGTGTTGGAAGGAGCTCTGGTGAAAAAGTGTGGTCTGCA
TGANGGGCTCCCATGAATNAGAGGATAGGGGTGGCNGGTACCTGCCCG

Sequence 2628

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGAGGTCCCGGCAGCAGCAGGA
AGAAGACGGACCCCGCATGAGGGCGGCGGCANGGAGCACCTTCATGTTGCGTTTCGGAGC
CCCGCGTACCCTATGGACAGTTGTGTCCCAAGGAAGGATGAGAATAGCTACTGAAGTCC
TAAAGAGCAAGCCTAACTCAAGCCATTGGCACACAGGCATTAGACAGAAAGCTGGAAGTT
GAAATGGTGGAGTCCAATTGCCTGGACCAGCTTAATGGTCTGCTCCTGGTAACGTTTT
TATCCATGGATGACTTGCTTGGGTAAAGACATGAAGACAGTTCCTGTCATACCTTTTAA
GGTATGGAAGAGTCGGCTTGACTACACTGTGTGGAGCANGTTTTAAAGAAGC

Sequence 2629

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACCTCATCCCCTCAG
TGACTAAGAATTGCAGNATTTAAGAGGTAGCAGGAATGGGCTGAGAGTGGTGTGCTTT
CTCCACCAGAAGGGCACACTTTCATCTAATTTGGGGTATCACTGAGCTGAAGACAAAGAG
AAGGGGGAGAAAACCTANCAGACCACCATGTGCTATGGGAAGTGTGCACGATGCATCGGA
CATTCTCTGGTGGGGCTCGCCCTCCTGTGCATNGCGGCTAATATTTGCTTTACTTTCCC
AATGGGGAAACAAAGTATGCCTCCGAAAACCACTCAGCCGCTTCGTGTGGTTCTTTTCT
GGCATCGTAGGAGGTGGCCTGCTGATGCTCCTGCCAGCATTTGTCTTCATTGGGCTGGAA
CAGGATGACTGCTGTGGCTGCTGTGGCCATGAAAACGTGGGCAAACGATGTGCGATGCTT
TCTTCTGTATTGGCTGCTCTCATTGGA

Sequence 2630

CCGCGGTGGCGGCCGCGGGCAGGTACAGATAGCAAAGACTGGGACCACAGTGGAGGGAT
GCCTAATCCAGACAAGGGCAGGAATAGGCAGGGAAGGCTTCCTAGAGGAAGTGATTTCCA
AGCTGAAACTTGACAGATGGAACAGAAGNTAGCCAGAGATGGGAAAACATTTTTGGTCA
ATGGAAGANCAGGTGGTTGAGATAGAATCTGACACATGANAGCAAAAAAAGTCCANN
GNTGGGAGAATACNNGTGAGAATAAGACAATNTTAACTGGCNATATAAGTAAGNGATC
ATCAACAAGGCTTTGTAGGACATAGTAGGGAGTTTAAGACTTTTTATTCTGAGGGCAATGG

TABLE 1
430/467

GGAATCACAAAGAGGGAGTTAGGCACTNTACACAACTTC

Sequence 2631

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGCAGGCCTCCTACACCT
ACCTCTCTCTGGGCTTTTATTTTCGACCCGNGATGATGTGGCT

Sequence 2632

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGTGGATATCATACGAAAGTGT
AGTTTCAAAGGAGATGGACAAACGATACCTACAGTTTGATATTAAGGCCTTTGGNGAAAA
TAATCCTGCCATTAAATGGTGTCTACTCCAGGCTGTGACAGAGCAGTAAGACTAACGAA
ACAAGGGTCAAATACATCTGGATCTGATACACTCAGCTTCCATTGCTGAGAGCTCCTGC
TGTTGATTGTGGAAAAGGACACCTCTTCTGCTGGGAGTGCCTTGGTGAAGCACATGAGCC
TTGTGACTGCCAAACATGGAAGAATTGGCTGCAAAAAATAACCGAAATGAAACCAG

Sequence 2633

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTTTTTTTTTTTTTTTTTTGTGAGA
CGGAGTCTCGCCCAGGCTGGAGTGCAGGGGCNCAATCTGGTCTCACTGGNNGCTNNGCCT
CCCGGGTTCGTGCCATTCTCTGCCTCANACTGTCGAGTAGCTGGGACTACAGGCACCCA
CCACCAAGCCCAGCTACTTGGGATCGCATGAGCCTGGGANTTTGAAGCNGCAGTGAGCCA
TGATCACTCCAGCCTGGGCAACAGANNGAGACTCTNTCACAAAAATTAACTTTACTTAAT
TACTTTTATTATTGNCATAATCGCTCCATTTTATTGTTGTTTGTGTTGTTGTTGNAACCAA
ATTGTAAAACCATTTTATNTTTTGTGCAAAACCAAAAAGTTTCTGAGACAGGTCTTAAT
TATTTAGAAGTTTATTT

Sequence 2634

TGGAGCTCNCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTGTGATAAG
GCTAATATTTTTTAAAGGAGGCACAGTGAATTTAAGACATTGACATTTATAGCCGTAGC
TCGACGCTTACTCTTGGAGGCCCAATTATCATCCCTGTCCATCTTGTAAAGTGCATGTCT
TCGTCACTCTTAGACCCAGCTAACTGTGCCATCTCCTACTCCTTTCTGGCCTTCTTCG
AGTTCTTCCAACAGTCGGAAATTGCGAGGGACTTTTACTCCCGAGCCCGTGGTGGCTGCC
ATCTTGCGTCTGTTGCTTGAAGGCCGGCCCTTCTCCCCGCGTCTGCCCCGGCGGCC
GCTCTAGAACTA

Sequence 2635

CTCCCCGCGGTGGCGGCCGAGGTACTCTCCGCCTAAGTCCATAGAGAGGCTAACACCCCT
TCTAGTTTATTAGTCTTTGNTAAACCTATGAAATTCTGAATNTAATGGCTANNTTATATG
CANNGTGGAGGNCACNCAAAAATGTTTCTCTCAACAGCTGTGATAAGTATAGGCTTATTT
TGATGTCTAAAGATCTGNTACCTGTATCTGNTTTCATCTTTCAACACAAATTCATGGGAA
NNTTAACTATGNNCCTGTGNTCNGGACAAGTGTGCATGAGAACATCATNCACTAAGTTTA
TCATNAAATGGGAAANGAAGCAGACNTTTTAAAAAGCACCCAAACCGGCCGCTCTAGAAC
TAGTGGA

Sequence 2636

AGGTACGCGGGGGCTGACTCTTCTCAGATTACAGCCAGTTGCACCCAAGTAAATAAA
CAGTCTTGTTGCTCACACAAAGCCTGTTGGTGGACTCTTTCATATGGACTCATGTGACA
TTTGGNGCCGAAGACCTGAGACAGGAGGACTCCTTTGGGAGACCCGGCCCTGTCTCGCC
CTNTTTCATGAGATCCACCCATGACCTTGGGGTTCCTCANCCCAGCNCGAANGAACTTCT
TCACCAANTTTTAAATCGGGGACCGCAAAGCCAACAAGAATGAAGAAAGTGNCCAGGTATG
GTGGCTCATGCCTGTAATCCCAAGCACTTAGGGAGGCCGAGGAGGAAGAATTGCTTGAGG
CCNAGGAATCCCANACCAGCCTTGGACAACATGGCAAAATNCCANTNTTTTCAATNANA
TTAAAGNAAANAAATTAAGTTACCTGCCTNNGCGGGNCGTTCTAGNAACTAGTTGGANC
CCCCCGG

Sequence 2637

TTAGGGCGAATTGGACTCCACCGCGGTGGCGGCCGCGCCCGGGCAGGTACACGGTCAGTCCG
GGTCTAAGGGCGCAGGGTAGGGCATNCCACTGGGAGTTCAAAGGGGAAACNAAGATGGT
TCCCACTGCTGCTCAGACAGTGTGCTAAAATTCCTCACTCATTTTCAAGTCTTGTTTT
ACATAATGGCTTTTAAAGCAACTTTTGTTAATGCTNCTGATNCTTTAATNCAAACTATTA

TABLE 1

431/467

ATGTNCCATTTTGGTGACATCTGGGTTTTTCATACANAAAAAAAAAAGTCAAAAAGGGGA
AACAAAAANATATTTACACATTTTATATATAAACTTAAAAACCTTGTACCTTN

Sequence 2638

CGAGGTAATATGGCAGTTTTGCCTCAGGTGCTGAACATTTCTCAGCCCTGGCTAAAAGGG
AGCAGCACAGGGAGAGAAACAGGATAGGAAAGCAGAATGGCGAGCAGCCTATGGCCCAGG
GCCTGTAATCCCTTCCCAAGACTAGCTGCTCAGGGTGGTGCAGGGACAGGACCAGACCCT
GCGCCTATTTCTGCCTTCTTTCCCTATAGGGAACCTCTGTAGGCTGAGCCACTGTCCTGC
TCTTATGACATTATATCTTGTGCCTTTCTCCTCAGCAGTGAGCAGTGAGCTACTCCTGGC
CCAGGCCCTAGGGGAAATGGATCAGTCTTTGAGGTTTCTATTGGGGAGGGGAGTACCTG
CCCG

Sequence 2639

CCGCNTGGCGGCCGAGGTAATGTTTTTTTTTTTTTTGAGACAAGGTCTCGCTCTGTCA
CCCAGGCTGGACTGCAGTGACATGATATCGGTCACTGCAACCTCTGCCTCCTGGGTTCAA
GGGTGATTCTCGTGCCTCAGCCTCTCAGGTAAGTGGGATTACAGGCATGCACCACCATGC
CTCGTATTTTTTTGCGTGTGTTTTAGTAGAGACGTGTTTCACTATGTTGTCCCGGGCT
GATCTCCAACCTCCTGTAAGTCAAGTGATCTGCCCGCCTCAGCCTCCCAAAGTGCTGGGAT
TATAGACATGAGCCACCACACCTGATGTCTGATGCTTATTTATTATGTGACCTTAGCGAA
GTGTGGTAGTCATTAAGTGCTGGTCTATCTCTATACCTTCCCAGGCAAGGTAGGATTGC
ACTTCCGCTCCACTTGTGATTAGGTGGAGCCATGTGACTACTTT

Sequence 2640

TGGGCTCCCCGCGGTGGCGGCCGAGGTAAGTAACTTTCCAAGGAGTCTTGGGTGTGTA
GCCAAGAGGAGCCATGAGCTATGGACTCCTCAAGCACGGGAAGAGGAGGTGTGTGCTGAG
AACAGAGAGGCCCTGCCCTCTGTCCACTAGCGAGAATCCCTAGCTGCCCCAGCCAGTCT
TTCTCCCCGGCATTCAAACTTTGCAAGCGTTGGTCCAGGGCCCTTCTCCAGATCTGTT
NCAACTTTGNAGAGTGAAGGGCTTGAGCATACGGGGGAAGAGAGTCTGCATNANGTTAGG
GGGAAAACTTTTAAAGATACCCTCATTGTGTCAAAGAAGTGTCGAATCTATTTTTGT
ATCAGCATTGGGAAGNGCACTTTCCCTGCGGCCGTGTGGGTGNGTGAATGTGCAAGTGT
CTGAGAGATACTGCATCAAGCCCTAGACCCTCAAGAGCCAGTCCCAGCCCTTTACAGAGC
ANTCCCTTATCCTGGGGCCATGGGTGAGGCTGACCTTCAA

Sequence 2641

CCCCGCGGTGGCGGCCGANGTACGCGGGGACTTCGGGCTTGTTGCTGGTGGCGTNNGA
GCCNAGCCCGGACTGGTCAGGATNGATCACGGACGTGCAACTCGCCATNTGNNGCCAACA
TGCTGGGCGTGTGCTCTTCTTGNNTGTNGATCTCTATCACTTACGTGGNCNGTCAAACA
ATTCCAAGAATGCANGAATGAAAGTTGGCGCTTTCTTCCGCCCCANGGTCCCAGGACATT
AGTCTGNGGCANGATNGAGGGTNTNGAAGGGGCCTTTCACTTAACTTTATTCCTTTT
ACCCTTCACAACATACAAAAGGCAACTTACACCTGGGATTTTNCAAAACAACCTTTTAT
TTCCCTCAGANGNCTTTCCNTTAATCCCTATGGAACAAAGAANGCTNGNCCACTTGAANT
AGGGGCCCNAGTATAGGGGGCTTTGCTTTTCACTTCCNTC

Sequence 2642

GGACTCCACCGCGGTGGCGGCCGAGGTACGCGGGTATCTGTCATAAGCTCAACATCTGTAG
ATCAGAGGGCTACCAGAGGAACCAAGTTTTAGAAGATGAACAACACCTNTAGAAAAGAAA
TTGCCTGTNACGTTTTGNAAGATAAAGAAGCGGGGANAACCTCGAACGTTGCAACCTGN
AAACTGGGAGAAACGANGGCAAGCTCTNTTGAACAAGCAAGCTGCAAGGGAGCAAGGNN
CGCCTGNCCANCATGGAGCCGCGCCNNGNCNANGGAAAAGGAAGGAGCGTGAGCGCCAGG
AGCAAGAAGCGCAACAAGACAACCTTGAACNTGGGGAAGCAACTGGGAAANGCATGCTGT
NAGCTANNAACCTGCANTATNAGAGGGAGGAGAGGAGGAAAAGAAATTNGANAGGCGAA
GAGGCTNGCAAACTGGGAAACTTGAAGGCAACGACAACCTTNGAGTGGGAACCGGAANT
CGAAGGCAAGAACNTNCCTAAATCAAAGAAACATAGGAACAAGGAGGGACATAGTTTGNAC
C

Sequence 2643

CAATTGGACTCCCCGCGGTGGCGGCCGAGGTACCTTATGTAGCCCAAGAAATTCAAGAGG

TABLE 1
432/467

AAATTGATGGGGCTCCTTCAGGAGCAGCGTGCAGATATGGACCAGTTCAGTGCCTCAATC
TCAGAGACCCCTGTGGACAGTCCGGGTGAGCTCTGAGGAGAGTGAGGAGATCCCACCGTT
CCACCCNNTCCACCCCTCCNAGCCCTACCTGAGAACGAAGACACTCAACCCGGAGTTTG
TACCTGCCCCGGGCTGGCNCGCTTCTAGAACTAGTTGGATCCCCCGGGCTGCAGGGAATT
CGATATCAAGGCTTATCCGATACCGTCCGACCTCGAG

Sequence 2644

AATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGGGA
AACAGGGTCTTGCTATGTTGCCAGACTGATCTCAAACCTCCTGGCCTCAAGCAATCCTCC
TGGCTTAGCCTCTCAAAGTGCTAGGATTACAGGTATAAGCCACTGCACTAAGTCCAGTGA
ATCATTTTCCAGACAACATTTACTGAATATCCGACACTGCCTTCCACAGACGGGGGAGGT
TTCCCAAAGAGGCCGTGCTTTTTGAGAACTGGCAAGATAACCCTGGGGTGGAGGGAAGG
TGGCCCGCAGCTGAGACCACCACTTACTGTCCCCAAATCCTCACCAGAGGTTGCTGACA
CTTTCCTNTTCCCCTCCTCATCTACTTTCAAATTAGAACAGTAGAAAATGGGATGATT
AGGCTCCTTNNCATTTTTTAAAAACCCGTTGTTTCAAATTTTNTAGACNCCAAGTCTN
AAANGGGNGTAATCNCCTTNGTAAAAATTTAAATT

Sequence 2645

CCGGCAGGTACCAATCATATAATNTATATAACATTGCTATCAGACTAAAAACACATTCTT
AGCTAAAGATAACTTACCATTTAGAAGTCAAATGCAGGGAATCTTACTCCTGTTTCCAT
TTTNTGNCCCNCTTGCTTCACTCGNGTATGNCATGCTCTATCTTCTCCTATGCAGACT
TTANGNCNGTNGGCCATTAANTCTTGAAGAAATTTCTTCNNTCTTGCTGTCACNTACCA
NNTTANTTGGTCTGCGTGCAACAAGAAGGNGTATTATANNAAAAAAGTTCTTGCTTAACC
ATTCANGATTAAATAAANAAAAAATTCCTTTGTTTNAACATTTTGNATTTTTTGCACA
TACACCAAACCTTTTTAATTGCCTTTTNCANAGNNCCTTTCCCTCCAAAAAATAAAAAAC
AAAAATCTTCAATCNACATAAAATCAAACACCTGTATTGATCCATGTTTCATGCTAAGCT
GGGNAA

Sequence 2646

ACTCCCCGCGGTGGCGGCGAGGTACAAGCGCTTTGAATATCATGGGCACCATGACTGTGA
CCCTACAGGTAGGATTGGATCACTCCATGAGAGTAGCCGGCAGGTTTCTACAATGGCCTG
GGAATGGAGTGATTATTTTATACATTTTCTGGCCTGAGAGAAAGCCAAGGTCCCTGCT
GTTACAGCAACCCCTGCCTGGGAGCTTGAATCTTGGTAAATCTGCCCGTTNGGATCTA
TTGGAGGTAGGCTCACCTTTTTNGTCTTTTGTGGGAAAAATTAAGAGAAATAATTNTCA
GACNTATCATCACCTCCAGTGGAACCTACAGAAACCTGGACCCANCTGCACTATTTTAAAT
GTAAAAATAACAATATGGCCAGGGTGCAGTGGCTCACGCCTGTAATNCNATCACTTTGAG
CAGCCAAGGCGGGCGGATCACGAGGTGAGGAGATTAAGACCATCCTGGCCAATATGGGTG
AAACCCTGTNTTACTAAAATACAAAAAATTAAGTGGGCATNGTNTTGCCTGCCTGTNG
TCCCANCTACTTGGGANGGCTGNGACCAGGGGAATTGCTTTGAACCCCGNANGGCNTAGA
ATTGCANTGAGCCNNAATCANGCNTCTGACTTCTACCTNGGCGACAGGANTGGGACNTT
TNTTAAAAAA

Sequence 2647

AGGTACCCTATATTCTTCTTGATTTCTAGCCTTTTATTGGCTCTCAGATTGCCAGAGTTG
GGAATCAATAGTAAGCANCCATTCTGGTGAGGCGGAAGNGATNCTACCAGGGTGNGTTNT
CATGACAAGCANAATCACTGNGTTTTTCTCTACTCTGTGGCATANGACTCTATGCCAT
AGAGNGACGTGTGAAAGGCTTGAGGCT

Sequence 2648

TCACCGCGGTGGCGGCCCGCCGGGCAGGTACTTATTTTCTTTTTTTTTTTGGGGGTGGG
GNCCTGGGNANTTTNTNAAGGGGCTTTTTAACNNGGGANGANANCCTGTGCCGGTTCAN
CCCANGCCGGTNGTNAATTTTCAACCTTTTTTCACTNGCTTTGGGTTTTTAAGGCTTTN
GTTTTCNANCNTTTTTCTTTNAAANCCTTCTTCAAGTNGANGCCATTCTCCNGGTTT
CTTCNAAATNTGGGCCTGGGTCCCTTNTCCCGGNTTTAAAAANAACCTTNCACAAAAACA
AAACANTTTTTTCCCCTNG

Sequence 2649

TABLE 1
433/467

CCGCGGTGGCGGCCGCCGCGGGTACGCGGGGGTCTCCAGAGTGAGTGTTCCGGAGAG
CACCGTGTTAGGGAAGGAGGAGGCTGCGGGCTAACCTGCCGGGAGGGAGGATGCTACTGC
CTGTTTCCTATTAGTGACAACCCACCTCCTAATCACGTCCTGCTTCAAACAAGGTAACAT
CACAGGACAGCCTCCGAAACAATAACTGTTTGAATATCCTTAATCTTCGGCAACTTCAAT
AACTCCCCAAAATATATGTAATCAGAGAATTAACCTTTACAACCTTTGGTTATTGTTTGC
TTGAACCATAAAGCAGAGCTCTTCTGGGATAAAAAAAAAAAAAAAAAAAAAAAAAAAGT
ACCT

Sequence 2650

AGGTACTTCACAATACAACCTCTTGCAGAAAGTATGAAGACACTCTGTGATGGTGGTGGCA
TCCACGAAGTAGCCGGCGCATAGGCAGCAAACAATGTGTTCAATCAAGTCTTTGATCTTC
ACTCGAACCTCCTCCTGACCCTCCTTCCAGGGGAGACTACACAACGTCGGCGACACAA
CGCGCAGGCCCGCGGTACCTGCCCCG

Sequence 2651

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAACAAGCAATAATAAA
AGTCCTCTGCCGAAGACAGAATAGTGTAACCTTTCTTCCCCTGCCCTTACAGATTTTC
TAGAGAAGATAATTTGGGAATAAAAGGTATAAAAGGTTTTTGAGAAAAGAGAGATCAAAG
GACATTCAGAGTTCGGGAGGATATCTGGGAAGCAGACTTAGCTTAGATCCTAAAGGGTGT
AGAAGATCTGCATTGCTGGGGAGGAGTGTGGGAGTGGTAAACCAAGTCAAAGAATTCACAG
ATGTGCTGGGAGGAGGAGAAGGGGAGCAGAAGCAGGAAAACAGTCTGGCTGAAACACTGG
TTGTATTTCAAAGAGCAGTAGCAAATCAGGGTGGATAAATGTGTGGGCCTAAGCAGCTGG
TGAGCATTAAATGTGTAAGAATCAAATTGTATCCTTAGCAAACCTCTGAAGATTTCTGAG
TAAGATTTTATGAGTGTTGGTAAATTTATATAGGATGCATATGGGTAGTACCTGCCCCG
GCGGCCCGCTCTAGATCTAGTGGATCCCCC

Sequence 2652

CCGCGGTGGCGGCCGAGGTACATAGTGTGCGCAACTCAAATCGGCATTTAGATAGATCCA
GTGGTTTAAACGGCACGTTTTTGCTTATAAAAAAGTGCAAAAAAGATGTGGTTTACAAG
TTAAAGCTACAGAATCCCTTTTTGCTGTAATTGCACCAGTTTTAAAGCCTCTGGACAGAG
CAGTATTTCTGTTTAAACTTTGTTTTCTTAAAGCTTACAGTGTGGCTAATTCTCCT
CCCCTTTTACAAGACGGGGGCCGAGGGTGGACACTGGTGGCAGGTTAAGGGATACTGT
CACTTTAAGAAGCCTGCAGATTGAAGTGTAAACATGGAGAAATTAGGGGCTGATTTTTTA
AACTGTGTGAGATTAACCAGCCGCCCTGTTATAAAATCAGGAAATNCAAACAGCGATT
TACACCGATTAACACCCCTTTATATATTTTTTACAAAAATCACTGAGAAAATAATNAAC
GTTTTCATCTCTCTTGGCTTTTTTGGTTTTAAAAAGTGTCAAAAAGTCTACATTTAAAT
NTAAAAATTTAA

Sequence 2653

CACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACACCAA
ATGGATTACAAGCAGCATCCAGCAGAAGACAGACCCCCCAACCCTGCCACCAGGGCTCA
CACTCTACAAAACCTGAGGGCCTAGAAATCTGTAAATGCATCGCCAAGCACTGGGGCTG
ATTTGCAGTAATTCTCTAAGCAAGGCAAACATGATCTAGCTTTGAAGGCAGCATGAAGGC
AGCGGGTTGGTGAGAATAATCTCTCCTTAAGAGAAGAAGAAACCTGGGGCGGAAGGAGTT
TTCCCCGAAGTGGCTTCCCGCGTACAGAACACAGAACTTATTTCTGTCAGTTATTTAATA
CATTGAAAATTTAGTGAAATGTTCAAAGAGAATAGATGTTTCCCAAAACAACAACCTTTAT
GTTAAAAATAGTCATTAAAAGATCTGTTGTAATTAATA

Sequence 2654

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGTAAAGGTATAGT
AGTTGGCAGCAGAATGGACCCATTGAGGATAACTATAAAATTACNGAAAATATTTAAATG
CAACTTATTGCTATAGAAGCAAAGAGGACTAAAGGGCAAAATTCTAGAGAGTGGTAAATC
TCAGAAAAGCACAAGCATAAAATGCAGCTCTGGGGGCCCTTTCCACTTCTGGCTATAGGGA
AGAACCTGAATACTGAACTTGATTGAGGCAGAGGACCATAACCTGGGGGTCAGGGGAAGG
CATGGGGGGGACCAGAAACCAGAAGAACGATCAAGACTGCAATGAAAAAATGGATACAT
TAGGAGCTTCAAACACATATAATTTCTCAAGAAATTTCCAGATTCTCATGCTGCATAGGG

TABLE 1

434/467

CAGGAGCCTGAAAAGCTAATTTGAGAAGATAATAAGTTGGATTTTTGNTTTGTTTTGCAT
TTTGCAAGTACCTGCCCCGTGCCGGC

Sequence 2655

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGGAGGTACCACTGAATCCAAGG
CTCTCTTGGGTAGCCTATGTGCCTCTTGGATGGTATGTGGAAGCCAAGGACTGTCTGAAC
GTGCTGAACAAGAGCAACGAGGGGAAAGAATTACTCGTCCCACTGACGAGTTCTATGTAT
GTCCCTGGGAAGCTGCATGATGTGGAACACGTGCTCATCGATGTGGGAACTGGGTACCT

Sequence 2656

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCCCCGGGCAGGTACTTGAACAGTAGGAGG
AGGTGGTTCTCATTCGTCTCCCGGAGCGTCCTCTTCTCAGTCAGGCTGGCACCATGAC
CCAAGGAACCTCGGCGAGTGACGGATAAACACCAGTCGGCCCCGCGACTAAGAGCTGCGCC
CCCGCGTACGCGGGTCACCAGGGTCAGTTTTCTTTAATGATGGTTTCCAAGTGGCCTAATA
CATTAGTAAGACTGGCTGATAACATGACCAGACAGACATAAAGACCCTGTTGGGAATGA
CATTGAACTCTCAAAGTCAAGATTTCTTACACAAATCTATCAGCTGGAGAAAATGAAGGC
AGTGTGGTATATGTGTGCAAATAAGGACATTATGAAGCTTAAATATGGAATGTCTCTTGG
ACCCCCGATGTCATCTGNATTCTTTTTTCTTCTGTACCCT

Sequence 2657

CGAATTGGAGCTCNCGCGGTGGCGGCCGCCGGGCAGGTACCATCTTGGCTCACTGCAA
CCTCAACCTCCTGGGTTCAAGCGATCCTGCTGCCCCAGCACCACCCCTCTCCAAGTAGC
TGGGACTACAGAAGTGCATCACCATGCCAGCTAGCTAACTTGAATTTTTAGTAGAGACA
GGGTTTACCAGGTTGCCAGGCTGGTCTTCTGAGCTCAAGCAATCCACCTNCCCTGGCC
TTCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCACCCGGCCCATTTTATATATTATT
TTTGCATAGCCTTCATTGTCTTAGCAAAGTCAGAAGAAGACCANTAACATAATGTNATTT
AATTAACAACAACGNCAACAACAACAACAACCCNGGATGGGGGCAGTGGCTCAAG
CTANTAATGGCCGNCCTTATGAAAGNCCAAGGGGNGNGGATTGGTTGATTCCATTTTAAA
ACCAAAGTGAANCCCTNTTTTTTANAAAAAATAAACCCTTAAAAAAATCCTTGGTTTTTG
TTTAAANGNGCCGGTCCCCCCCCCAAGGAGAAAATTTTTNGGGGGGGGGGNGTTAAAAAA
AA

Sequence 2658

GGGCGAATCGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTNTTTTTTTTTTTTTTTTT
TTTTTTCTCCANAGGCTAGTTTTTCTTCAGTCCTTAANAACCTGCTCCTTATATGGGCT
TCGGTGGCAGTCATGGGGCAGCACCGCAGGTCTACAGTGGGGTGGAGGTGTTTCGGTCCTT
GCGGGGCTTCATGACCTTGATTTNTGGCGGTGGGGGGGCANACCCNCAGGTCTACAGTG
GGGGGAAGNGTTCGATCCTTGTGGGCTTAATGACCTTTGATTCTGACTACCGGGCTGT
GAATNGGCACAACCTTCACACAAGTATTGTGNTTTCNCATCNACCCTGGGAAAGAACCCCTG
CCCCGGGGGGGGCGGGGTTT

Sequence 2659

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTNTTTTTTT
TTTTTTTTATTT
TTTTTTTTTTTTTTTTTTTTNAAAAATTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
CCCNAAANNCCCCCNAAAAAANAAAAAANNNNTTAAAAAATTTTNCGGGNNNTTCCC
CCCNAAANNNTTTNTNTNGGCNAAAAAANNNNNNTTTTTTTTTTNGGGGCCNCCNTAAA
AAAAAANTTTAAAATTTTTTGGGGGGGNCNGGNANCCCCAATTTTNNNTTNGGGGG
GTTNAAAAAANAAANGGGGNAANNAAAAAANGGNCNNNNNAATTNGNNTTNTNAAAAT
TNCNCCCNNAANNTTTTTCTNAANCCCCAAAANGGGANGGNCNNTTNGGTTTTTTNAN
GGTAANGGGGGGCCAGGGGGGNTTTTCCCAANTTTTNCCTGGCCAAAAAAGGAAAAAT
TTTTTTTTTGTGGGGGGAGGGAGTTTTNAAAAA

Sequence 2660

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGAACAGGGATAAG
TTCTTGGATAAGGTGCCAACATACCTATAAAAGCTGATTTTTGAGTAAATTATTGATTCT
AACATATGTAATGGATTGTTGGTGTGATAATTTCTGATCTTAACTATAAGTGACTTTTTA

TABLE 1

435/467

TTCTCCACCAGAAAAGATAAATGACTGAGAATGTAAGTCTGCGCTCTGATTAACACAATG
GAGAAACGGAAAAACTATCTCTGTTAAAAACTGATTCTGTCTTCTGATATCAAAT
AAGAGGAAGGAAAATAAACTTTTTGTGTGTAGATAGAAAAACATACCTGAGGCCAGGTGC
AGTGGATCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGGCGGGCAGATCAGCTGAGG
TCAGGAGTTCGAGACCAGCCTGGCCAACATGGTGAATCACGTCTCTACTAAAAATACAA
AAATTATCTGGGTGTAGTGGTGCCTGTAATCCCAGNTACTCGGGAGGCTGAGGCAG
GAGAATCACTTTAATTC

Sequence 2661

TCGGAGCTCNCCGCGGTGGCGGCCGCGGCAGGTAAGTCTGGCTGCAGACTGACCTTGCTCAG
GTCCGAGAAGGATGGGGCAGCCACTGGAGTGGATGCCATCTGCACCCACCGTCTTGACCC
CAAAAGCCCTGGAGTGGACAGGGAGCAGCTATACTGGGAGCTGAGCCAGCTGACCAATGG
CATCAAAGAGCTGGGCCCCCTACACCCTGGACAGGAACAGTCTCTATGTCAATGGTTTCAC
CCATCAGACCTCTGCGCCCAACACCAGCACTCCTGGGACCTCACAGTGGACCTTGGGACC
TCAGGGACTCCATCCTTCCTTCCCAAGCCCTACATTTGNTTGGCCCTTTTCTGGTGCCAT
ACACCCTTA

Sequence 2662

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGGGAGGGACATACAAT
ATTTAATAGGATATTTCTACAGAACAATAACTTATATTATGTCCTTGTAATAATCTGTAC
CTCTTTAAACATTTAACTGAAACATCCATTTTTTTTAGCTTTGCTAATCAAAATTGTT
TTAAGAATTAAGCTAGGTTGTAATAATGTCAGTACCTGCCCGGGCGGGCCCGGGGCA
GGTACATAGGCATCCTATTCACTGCACCCTGTCACACCCGGCACCCCCCGCCCCGCACAT
TATTTGAAAGACTGGGAATTTAATGGTTAGGGACAGTAAATCTACTTCTTTTCCA

Sequence 2663

AGTTCGGTGTAGGTGCTTTCGCTCCAAGCTGGGCTTGTGGTGCACNGAACCCCCCGTTTT
CAGCCCGACCCGGNTGCGCCTTATTCCGGTAACATTGCTTCTTTGAGTCCCAACCC

Sequence 2664

AGGTAAGTCAACTGCCAGAACTTGGTATTGTAGCTGCTGCCCGCTGACTAGCAGCTGGAC
TGATTTTGAATAAAAATGAAAGCATTAAAGGGTTTCCCTACAAAACATTTTCTTTAAAA
TACTTTTGAATGCTATAANCAGTTGACTTTCACCCTTGGAGAGCATCACACTGTGTG
AGGTTCAAGTATTGTTGACCCTNCCCAGCCCTNCTGCTTCTTTAAGTTATCTGTGTGCG
TGCNCTTCTCTCAATCTTNTTTTGACCCGCTCATTNTTTTCTCTGACCCATGAAGAA
AAGGAAAAACTTTACTGATTGATAAANTTTTTAAANAA

Sequence 2665

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTAATTTTTTTTTTTT
TTTTTGGTAGAAGTGGTGTCTCACTATATTGCCTTGGCTGGTATTGAATTCTTGGGCTC
AAGCAATCCTCCCTCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCTCAC
CCAGCCCACTTATTCATCTTTTTGCCTGCAAGCTACACCACCAAAGCCCCAGGTCAAACA
TCTTTCTCCACAGACTGTGAGAAAAGAGCCTTTCTCCTCCTAATTTGTAATGGCTTTCA
GCTCTATNTGTCTAGCTTCAATCCTGACATCTGCAGCTTACA

Sequence 2666

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATGAGGCTTGGCTCTGTGTGAT
GCACTCTAACCAGCCACACTTCAGCAGCGGCATCATTGGATTCAAGGAGAGTTTCTGC
AGCATGAAGGAGTAGGAAGAACACAGGGTGAGTTCACAGGAATCCCTACTTTTCCATGTG
ACCTTGTTTGGCCTGAAGTGATTTTCTTGACCTCTCTGGGCTGACTTTTCTCATCTGTA
AAGTGGAGGGTTTGAATATACAGAAAACAAATACCTTAAAGGATGCTCTGGCACAC
AGCAGGTATTTCCATATAATGATACCTCCCATTCCTTTTTATGTGAGCTATATCCCTGA
AACCAGGTTTGAATAATTGAGACCACTTTCATAATATACACAATGACTGNTAGATAT
GAATTTTGGTGTGGTGAAGATGGGGAGTGAAAAAGTAGAAAAAGTCAAATCTCATTGAA
TAAAAAAGGG

Sequence 2667

NNGGCGGCCCGCCCGGGCAGGTAAGTCTTTCTTTNCTTTTTTTNTTTTTTTTGAGGCAGAGTCT

TABLE 1
436/467

NGCTCTGTTGCCAGGCTGGAGTGCAGCGGTGCGATCTTGGCTCACTGCAAGCTCCGCCT
CCCGGGTTCACGCCATTCTCCTGCCTNAGCCTCCCAAGGAGCTGGGACTACAGGCTCCCG
CCACCACGCCTGGCTAATTTTTTTGTATTTTAGTAAAGACGGGTTTCATCGTGTAGCC
AGGATGGTCTCGATCTCCTGACCTNATGATCCGCGCGCTCTGTCTTCCCAAAGNGCTGGN
ATNACAGGGCCTGANCCATTGTGCCAGCCAAANTGNCCTTTGNAAAGTTNGCGAAATC
AGATTTTGTTCCTCAATAGAACCAAAATTTTATGAGGGATGCTAGCATTTTCCAAGGC
ATANTAATTAGTTTACAACCTGAANAAATATTATGTTTTGTANTAGATAAATATTAAGGT
GNGCATTTTAA

Sequence 2668

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTTATTACAT
ATGATTTTTATTAGTTTCTGGAGGCAAATTTAATTTTATTTTAAAATCAAATCTATTT
TAAAAGAAATAGTTCTCAAAAAGACAACGATGACTGGGTGTGGTGGTGTGTGCCTGTAGT
TCAAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTTGAGGCCAGTTCAGTCTAGCCTG
GGTAACATAGCAGGACCCTGTCCCTAAAATAATAAAAAATTTAAAAACCACAATAATGTG
AGTTACAAAAAAGTGTAACCTATGAAAAGTCCGTATTTATATTGAC

Sequence 2669

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGCAGGGGT
GGGAGCATTTATGGTGATCAGATGTGCCTGGCAAGCCCCCTGTTACAGACATTGCTCACATT
CCAAATGTTTTCTGTAGAAATATTGCACAGGTCTGGGGACGCTCTACCTGTGCCCTGTGA
GTGTTAATAATGGTGGAGAAAGAGTGTAGCTGTGCCCTTGAGAGAGAAGGTGAGGGAAAG
AGTGCACCACTGACGTGACCGTCAGCTGGCTAGGCTCTTCACTGAGTCCATGTGCGCAGT
GCACAAATCACTGCCCATCANGCCTCAGTTTCTCATCTGGTAAATGGTGATAACATCAA
TCTGCCCCCCCCGCCAGGGTGCTGTTATGAGGGTCAAAAGTGGTAGTGGAGGGTAATACTG
GNTGAGTCCATTTGTGTGTGGGAGGAAGAAAGGCTTTACATTNACCTGGTACCTTGGGCC
GCTTTAAGAACTAGGTGGATNCCCCCGGGCTGCANGAAATTTNATATTAAGCTTATTG
ATTCCCGTCCACCTTNGAGGGGGGGG

Sequence 2670

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTTATTACATAT
GATTTTTATTAGTTTCTGGAGGCAAATTTAATTTTATTTTAAAATCAAATCTATTTTA
AAAGAAATAGTTCTCAAAAAGACAACCGATGACTGGGTGTGGTGGTGTGTGCCTGTAGTT
CAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTTGAGGCCAGTTCAGTCTAGCCTGGG
TAACATAGCAGGACCCTGTCCCTAAAATAATAAAAAATTTAAAAACCACAATAATGTGAG
TTACAAAAAAGTGGTAACTTATGAAAAAGGTCGGAATTTAATATTGACCTTTGGTAAGAG
CTCAATTANTTTTCAAGGAAAGGCAAGGGAGTATCACCATTCTGAGTAATACAATTTCAAC
TAATCTTTATTTCTTACTTGAAGTCAGTGCCTATCTACCACAAACATTCCTATATCAG
TGTGCAAATTAATTTNGAGACAATAGGCTTTTTACGACAATGAATTGGTACTTTNAA

Sequence 2671

ACGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTNNTTTTTTTTTTTTTTT
TTTTTTTTCATTTTTATAAGAATATATAAAAAATGATATAAANGGACATTTACGGTAGTG
GGGGAAGGCATATATNTACGTTAAAAGGCAGGACATTTTAA

Sequence 2672

TACGAGCCATTTACAAAAATCGACCGCTTCAAGTCAGAGGGTGGCNGAAAACCCGACAG
GGACTATTAAAGAATACCAAGGNCGTTTCCCCCTGGGNAAGCTCCCCTCGTGCCGCTCT
TTCTNGTTTCCCGAACCCCTGTCCGCTTTANNCGGGAATACCCTGGTCCCNGCCTTTTTT
TTCCCTTTTC

Sequence 2673

CCGCGGTGGCGGCCGAGGTACGCGGGATGTGGTCTAATCAAAGCCATCTCAATTTGTAGA
TGAAGAAGGCAAGGACTAATGACAAGAAATGAATTGTTGGCCGGGCATGGTGGCTCACGC
CTGTAATACCAACACTTTGGGAGGCCAAGGCTGGTGGATCACCTGGGCTTGGGAGTTCGA
GACCAGCCTAACCAACATGGAGAAACCCCGCCTCTACAAAAAATAAATAAAAAATTAAG
CTGGGCATGATGGCGGGCGCGCCCCCTAATTCAGCTACTCCTGAGGCTGAGGCAGGAGA

437/467

AGGTACTCAAAGACGAATCATGAAAAAGAAAAAACTTTATTTCAAACAGGTTCAGTGAT

TABLE 1
438/467

ATATGTGGGTGCTNCAGCAAAGGCTGGTTGTGGCAAAGTTTCATTTCAAACGTATGATG
TGGGCTGGGCAAGGTGGCTTCACGCCTGTAATCCCAGCACTTTGTGCCCGCTACTCAGC
TGTGTTTCATGTGGNGGTCTGTGGAAAGAAAAGAAGACTCGTTTGGAAATGAAGCTGTCCC
TTTCCAAGCAAGTCTTCTGGTGGCTTTTCTTCTCTCAAAAATGGGATCCCGATAAAATAT
TTGAATAGGAGCNGAATTGGTAGAAATGTTCGTGCCTGTCACCCCAGAAAAGCCTTGCCT
GGTTTT

Sequence 2681

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTGGTTTAAT
TTCACAGTGAGGGAGTCGGTTGGTGATCTCTAAGAAATCCCCAAGCACCTGGTGTGGGA
AAGTCCCTCAAATAAAGAAGTGTTCTTTTCTTTTTTCTCTCTCTCTTTCTATTAT
TTATTTTTTGAGATGGAGTCTTGCTCTGTACCCAGACTGGAGTGCAGTGGCAGGATCTC
AGCTCACTGCAACCTCCACCTCCCGGGTTCAAGCGATTCTCCTGCCTCAGCTCCCGAAT
AGCTGGGATTACAGACACCCACCACCACGCCAGCTAATTTTTGTATTTTAGTAGAGAC
GGGGTTTCACTATGTTTTGTCAGGCTGGTCTCGAACTCCCAACCTCAGGTGATCCACCAC
TTAACCT

Sequence 2682

CCTCAGATTTTGGGCCTAGGAAGGTAGGTGATTTAAACTCACTGAAAGCATGTACACCTT
GCTGTTGCTGCTTGCTGCCACTGCTGCTGTTTCATCTGTTCTGCTGCCGCTGGAATCGT
GGAGGTAAAGACTTCTGAAACTGTTGAAATAGCCAGATAATACAGC

Sequence 2683

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTCTTTTTTCTTTTTCTTTTT
CTTTTTTTTTAATGTGAGACAGGATCTCATTCTGTTGCCTAGGCTGGAGTGCAGTGGCGC
AATCTCGGCTCACTGCAACCTCTGCCTCCTGGGCTCAAGCAATTCTCCACCTCAGCCTC
CCAAATAGCTGGGATCACTGGCACAACCACCATGCCAGCTAATTTTGATTTTTTGTA
GAGACAGGGTTTACCATGTTGCCCAGGCTGGTCTCAACCTCCTGGGCTCAAGCAATCCT
CCTGCCTCGGCCTCCAAAGTGCTGGGATTACAGATGTGAGCCACCGCATTACAGCCCACA
CCCTTATTTATACCAATTACCTGCCCAGTAACTGNGGACTTTTGCTTCTCACCCTGTTT
TGATCGCTTTAAACTAAGTGGGATCCCCCGGGCTGCAGGAATTCGATATTCAAGCTT
ATTCGAATACCCGCCGCTTCGANGGGGGGGG

Sequence 2684

GACTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTC
TTTTCTTTCTTTCTTTTTTTCTTTTTTTGAGACGGAGTTTGCTCTTGTTGCCAG
GCTGGAGTGCAATGACATGATCTCAGCTCACCACAACGTCCACCTCCCAGGTTCAAGTGA
TTCTCCTGCCTCAGCCTTCCCAAGTAGCTGGGATTATAGGCATGTGCCACCAAGCCTGGC
TAATTTTCTATTTTAAGTAGAGATGGGGTTTTCTCCATGTGGGTGAGGCTGGTCTTNGA
ACTCCTGACCTCAGGTGATCCACCCACCTCGGGNCTCCCAAAAGTGCTGGGATTACAAGG
CCGTGGAGCCCACCGNACCCAGCCAAAGGCCAAAATNCTNAAGTCTTTGNTTTTTTTT
TCAAATTGAGGGGTNGTTATTTAACAACAAGCTTGGATCATTTGAGNCCAATTNTTTTG
TTCCCCGTTTCCCCACCCGCCAATTCNTTTTTTTTTTC

Sequence 2685

AGGTACAACATTTAGAGAACCCTTAGCTGCCAGAAAACTCAGATTTTCTGCTTTACAAA
AGAATAAAAAATCATCGAATTTATTACCCTGGACTTTATTGGAATCAGTGAAGAATTTC
ATACCAAATACCAGGTTTACGAACNTTNCCTCTCTCTTTTNTTCAAGGTAAGGGGT
TTGGNCAAAAGGNTTGTTTNTTTTNGAAAANGCCGCCNGNTTGGNNCAGGTGGNNCC
TGTTAAGGGTTGGGCNNACGGGGGGTGGTTAAGGAAAAAATCAAATTTAAANCNTTTT
TATATTTTCCCGGGGGCTGNGTTTTAANCTTTAAACCCCTNGGTTTTNCCAAAGGGGN
AATCCCAAGGTTTTTTAAAAAAGGCCNNTTTTTTTTTTGGGGACCCTNGCCCNNGNC
GGGGCCCTTTTANAAAAAAGGGGGGGNTNCCCCGGGGGGTGGGANGGAANTTTGGAN
NTTTAAGGCTTTTTTGGGTANCCGGGAACCCTTNAGGGGGGGGGGG

Sequence 2686

CCGCGGTGGCGGCCGAGGTACTCCAACCCAAGCAACAGAGCAAGACCCTGTCTCAAAACA

AAACAAAACAAAACAAACAAAAAAATGAGGTAGGCATGTTTTATCCCATCTTACAGAT
GAGGAGACTGAGGCAATAATAATTCAATGGCTTATCTAAAGTCACAAAGCTAGTAAGGAG
CAAAATCCAGTTNTGTCTGCTTCCAGCCCACCTGTCCCACTTGCTTCTTTATT

[illegible]

AACACTACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCGGGCAGGTACAGTG
GAGAAAGAAGGGGGACCCACCAGGGCTATGGAGAGACAGTAGAGGCAGGACTGAACCGT
CAGCAAAGATTAAGGATGACCTGAGGCTGGCAACCACAAAACC

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAGAGTCT
TTTGCTTCTCCACCCCTAGGGGGA AAAA ACTGCTTTGTGCTTTGGGAAGTTGTCTCTGA
AACCCGGGGACAGAGGACGCAGGACAGACTANGAGGGAGCCCGGGAGGATGGGCTGCANC
TGTGGAGGAGGGTTTTAAAGGAGAGAGGGTCGGAGAGCAAAAGGCCTNAANAAGCCANA
AGCAAGTTGAGAGAGGGTGAAAAAGTGAACCACCGGCTTGGGCTTGAACCCGACACGCTT
TTCTTCCAATGGTTAAATAGCCACCTTTTAGAAAAAATTTNACAAAGGNTCCCATTCC
NCNAAAAAAAAAAAAAAAAAGGAAAAA

TATACGACTACTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCCGGGCAGGACG
GGAAGGATTCTGCCAGGGTGATTCTGGGGGTCCGCTGGTATGTGGAGACCACCTCCGAG
GCCTTGTTGTCATGGGGTAACATCCCCTGTGGATCAAAGGAGAAAGCCAGGAGTCTACACC
AACGTCTNGAGATCACGAACTGGGATCCAAAAAACCATTCAGGCCAAGTGACCCTTNACA
TGTGACATTTTACCTTCCGACCTACCACCCCACTTGACTGGTTTCAGAACGTTTTNACC
TAAACCTTGGCTTTCCTTNTNTNNTGGCCAGNTTTTNACCCTGATGCGTAAAAAACGCA
ACCGACGTGAGGGGTCCTGANTNTCCCTGGGNTTTACCCCAACTCCATNCTTNGATTAA
GGGGG

CACTACTTATGGGCGAATTGGAGCTCCCGCGGTGGCGGCCGGGCACGGTACTTTTTTTT
TTTTTTTTTTGGTAGGAGATGAGGTCTCATTATATTGCCAGGCTGGTCTCAAATTCCT
GGCCTCAAGTAATCCTCTCGCCTAGGCCATAGTATTGGGATTACGGGCGTGAGCCACTG
CGCCCAGGCTTTACTAGTTTTCCATCTATCTTTAGGCCTNCTCANATTTCTTGTTGGGGCT
CCACTTCCACCAGTCACACCTTTAA

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTGCACTCAA
 AAAATTATTTCTCAATTTGTTTGCTCATACTATTGATTTTTTCTAGAATCTAAATAAT
 TGTGAATTAECTATGATAGCAGTATGCACAAACAGTAAGTGAATCAGACCTATTAATTC
 TGAGAGGAAGGAGGTGTCAGGATTTTCACAGAAGAAGAGCACTNAGGCCAGGCGCAGTGG
 CTTATGCCTGTAATNCCAGCACTTTGGGAGGCTGAGGCAGGCNATNAAGNGGNCAGGN
 GTTTTANACCAGCCANCCAAACNTGGGGAAACCCCGNTTTTTANTAAANTCCAAATTT
 CCCCCCTGTANTCCAGTTACTNAGNGGGGNTTGGGNCAAAAAATTTTTTTACNCCCG
 GNGGGNGNGGGTTTTNCAGAGNNTATAAATCGCGCGNTTNGCTTTNAAATTTTNGGGNAA
 AAAAGAAACGAGTTCNCTTTTGAIAAAAAAAAAAAAAAAAAAANGG

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCCCGGGCAGGTACATAAGCCTAA

TABLE 1
440/467

ACAATTTACCTANGTAAATATTGATGTCATAACCAAATATATGGCCCCGTTTCATAA
AGGTTACTATATTCTATAGAGAGTGAAGAGGTGGCCTTTCTATCCCAGCTTACCCTATTC
TTGTTATTGTTCAAATTCCTGAAGCTTGCACTAGCTGCCATCAGGTAAATGCTAT
TGGCTAGCAGAAGACTGCAGTTCTGTTAATATTAGAACCAGCAGGGGGAACCTGGGAACT
TGACATTAATAATCTAGAAACGGAATTTA

Sequence 2694

CCGCGGTGGCGGCCGCCGGGGAGGTACTTTTTTTTTTTTTTTTTTTGGGCGGGGGTCT
TTATTTGAGTTTAGGCATGATTCGAATGAAGAGGATCATGCTAATGAAGATGAAGCAGAC
GATAATGAGCGTGGCCCAGAGCAGCCAGTTGACTGACT

Sequence 2695

GAGCTCCCCGCGGTGGCGGCCGAGGTACACCTGTGGTCCCAGTACTCCAGAGGCTGAAG
TGAGAGAGTCTCGTGAGCCCAGAAAGTTGAGGCTGCAGTAAGCTGAGCCATGATTGCACC
ACTGCACTGTAGCCTGTCTACAAACAAATAAACGAAAAACAAAAAGACTTGTGAAAAGT
GCTGATTTTAATTAGGAAAAGATTAAACATTGGATAGTCATGGAATTGTTTACTGAACA
TTAGAAATTGGTTGCAAGGGTCTATGCTTCTGTAAAATAAA

Sequence 2696

ACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATATGAATCACTA
AGAGTTCAGAAATTAAGCTCACTTTAAGAAAACCTAGCCAGGCACAGTGGCTCACGCCTG
TAATCCCAGCACTTTGGGAGGCCAAGGCGGGTGGATCACGACGTCAGGAGTCCAAGACCA
GCTTGACATGGTGAACCCCTGTCTCTACTAAAAATACAAAAATTAGCCGAGCGTGGTGAC
ACACGCCTGTAATCCCAGCTACTCAGGAGGCAAGGCAGGGGAATTGCTTGAACCAGGGAG
GCGGAGGTTTGAGTGAGCCCAGATCGCGCCATTGCACTCCAGCCTGGACAAGAGAGCGA
GGACTCTGACTTCCAAAAAAAAAAGGAAGAAAAAAAAAAGTTCCCTTGCCCGGGCCCGN
CGNTTCTAAAACTAGGNGGGNTNCCCCCGGGGCTTNNANGGAATTTNGATTATCAAAGC
TTTNTCGANNNCCCGTCGACCCTCGAGGGGGGGGC

Sequence 2697

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTT
TTTTTTTTTTTTTTTTGGTANGGGACCGGGTTTTACCATGTTGGCCAGGATGATCTCGA
TCTCCTGACCTCATGANCTGCCTGCCTCGGCCTTCCAAAGTGCTGGGATTACAGGCATGA
GCCACTGNGCCAGGCCTTTGTCCATTTTTATTGAACTGCCTATTNCTTCTTACTGATT
TGAGAAAGTCTTTATTCTAGTCTGGCAGGTATTTNTTTCAACACTTCCAAGATTATTN
ATTGGCTTTGGNAGCTAATGCTTCATTGANAAAAATGCTACCTGTATTATTGATGCCCAT
GTGA

Sequence 2698

CACTACTTAGGGCGATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACAATTTCT
TTTTCTTTTTTTTTTTTTTTTTTTTTCTTTTTCTTTGAGACTGGGTCTCGCTTGTTCG
CCAGGCTGGAGTGGAGTGGCGTGATCTTGGCTTACTGCAGCCTTTGCCTCCCCGGCTCGA
GCAGTCCTGCCTCAGCCTCCGGAGTAGCTGGGACCACAGGTTTCATGCCACCATGGCCAGC
CNACTTTTGCATGTTTTGTANAGATGGGGTNNNACAGNGTTGCCAGGCTGGNCTTAAAC
TCCTGGGCTCAGGCGATCCACCTNTTTANCCTCCCAAAGTGNTGGGATACAATTGNGAG
CCACCACGTCCAGCTGGAAGGGTCAANAATTTTTACATTTTNGNAGCACAAATNTGGAT
TTTTACCCANCCCTTCCCTTCTTTTTCCCTTTTTANNNNCCCAATTTTAAATCGNN
NCNNTTTTNTTTTANAAAAAAAANCNTTTTTTNCCNAAAAAAA

Sequence 2699

CTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCCGACCAATATGGTTTATTNTG
CCCCAGCCAAGCTTNTTGGACCCTGGCTGGGGGGAAAGGCACCCAGGCACCGGCAAGT
TCCAGTCATTGCAGATCCTCCAGGTNTAGNGTGACTGGAAGTANCCTGGGCACTGNTGC
TGGACCGTNGGATTCTCCTTCTTNTCCGCCGGCGGGTGGTCACCAGGACACCGCANAT
CAGGCATGTGATGAGTCCCAGGAGTCTGCCAAGCCGATGAGGATGACAGCCCAAAGGG
AAGGT

TABLE 1

441/467

Sequence 2700

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCAGTGGATGCAAATGA
AATTTTATCTTTTAAAAGTAAGAGGAACTATGGCTGGGCGGGGTGGCTCACACCTGTAAT
CTCAGCACTTTGGGAGGCCAAGGTNGGGCGGATCACCTGAGGTCAGGAGTTCAGACCAG
CCTGGCCAACACAGTGAAACCCTGCCTCTACTAAAAATACAAAATTAGCCAGGCGTGGT
GGCAGCTCCTGTAATCCCAGCTACTTGGGATGCTGAAGCAGGAGAATCTTTGAACCTG
GGAGGCAGAGGTTGCAGGGAGTTTGAGATTGTCGAGTATAGTGGATTGAGTGTGTGGAG
CCGAGATTGCCAAGTGCAGTGGATCGAGTCCACTGCACTCCAGTCTGGGCAATAGAGCTA
AACTCAGTCTNAAAAAAAAAAAAAAAAAGTACCTGCCCCGGGCGGCCGCTCTAGAACTA
GGTGGATCCC

Sequence 2701

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTGCTACCAA
GCTCTTGAGGCCAAGCTTGATACGGCTGTTGTTTTTTCTACATCGTAGCCAGCAGCCGC
AAGCGCTTTCTTAAGCGCGGCCAGAGAAAACGCCGCTGCGCTCCTTAGAAGCTGCCACTG
CCTTGGTGATAAGCTCAGATACTGGGGGTCCGGATGCTTTGCGTTTCCAGCAGTTGCGC
CTGCCTTCTTCGCCTTTTTCTTCACAAGGTGTTTTTTCTGCGGGTGCAGGAATGGTAGGA
GCAAGTGGAGCAGTCTCCGACATGTTTTGTCTTCCAGAAAAGACAATAAGTAATCTCA
AACTGTCAGAACAGCATGTCCCCCGGTACCTGCCCCGGGCGGCCGCTCTAGAACTAGGTG
GATCCCCC

Sequence 2702

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGGAAGGGGAGG
GCTTGGTGTTCCCTACGCGAAGGTCTGACTCAATGCTTATCCCTCTTCTCCTCTCTCT
GCAGACTGAAGAATTGAACCGGGAGGTGCTGCCCCACGAGCAGCTCCAGATGAGCAG
GTCCGAGGTTACTGACCTGCGGCGCACCTTCAGGGTCTTGAGATTGAGCTGCGGTGACA
GCTGAGCATGAAAGCTGCCTTGGAAGACACACTGGCAGAAACGGAGGCGCGCTTTGGAGC
CCAGCTGGCGCATATCCAGGCGCTGATCAGCGGTATTGAAGCCCAGCTGGGCCGATGTGC
GAGCTGATAGTGAGCGGCAGAATCAGGAGTACCTGCCCCGGCGCTCTAGAACTAG

Sequence 2703

CCGCGGTGGCGGCCGAGGTACGCGGGTGTGAGGAGGTGGGGAGACCACCCACCCCATG
TCCACCATGACCCTCTTCCACGCTGACCTGTGCTCCCTCCCAANCATNTTCTCTGTT
CANANAGNTGGAGCTGAGGTGTCTCCATCTATGNCTCAACTTCATGGTGCAGTGAAGTGT
AACTTCTTCTTCCCTATTAAATAGAACCTGAGTATAAATTTACTTTCTCAAATCTT
GCCATGAGAGGTTGATGAGTTAATTAAGGAGAAGATTCTTAAATTTGAGAGACAAAAT
AAATGGAACACATCAAAAAAAAAATTAATAAAAAAGTA

Sequence 2704

TNAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTTTTCTTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGCATCAAAAAGCT
TTATTTCCATTTGGNCCAAGGCTTGTTAGGGATAGTTAAAAAGCTNCCTNTTGGCTGGN
GGGAGAGGCTTAGGCANAANCCCTNTTACTTTGNANGGGGCCCTT

Sequence 2705

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTGTTTGAGACAGAGTCTC
ACTCTGTCACTGAGGCTGGANTGCAGNNGCGCGATCTGGGCTCACTGCAACTTCCACCCC
TTCGNTNTAAGTGATTCTNCTGCCTCANCCTCCNAANTAGCTTGGATCACAGGCGCCCGC
CACCACACCCGGCTAATTTTTGTATTTTAGTAGAGACATGGNTTACCAAATTTTTAAA
GAAAAATAAAGGTGCATGATCAACAATCAAACCTNTAGGACCGTCCCCTANCAGGAGAGC
AGCAGCAGNAGCAGCACACANACCTGCCC

Sequence 2706

CACTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGAGCTNACCACTT
CTAAGAAACTCCANAAAAGGAANCATGTGTNTTNTATTCTGACTTAACTTNATTTGTCAT
AAGGTTTGGATTAATTTCAAGGGGAGTTGAAATANTGNNAGATGGAGAAAGTGAATG
AGNTTCTACCACTCTNACTAATCTCACTATTTGNATTGAGCCCCAAAATAACTATGAAAG

442/467

CCGGGCAGGTGCGCGGGTGGGTGACGCTGGTGAANTGGCCANGGAAGTGACATGTCTC
TNCCTGCTCTTCCAGGGTGATTTTTTGGCTCTTGGTCTTGTTCCTACTGGC
TTTCCATCCCCATGGGGCAGAAACAGTGGCTCTGGGAGCAGAAAAGGAATTGAGGTGG
CAGGCAGAAGAGCCTGGATTGCTCACTGTTTGGGAACTTACTTNNAGANNTANANAAG

TABLE 1
443/467

ATCCNGGAAAACCCAAAANCCTTCTTGACCAAACCATTTTTTGGGGTTTTTTTTTGNNGG
CCNAAAAATTTTTTTTTTTTAAAAAAGNNNGTTGNGGANAAAAACCCGGGGGGG
GGGGGGGGTTTTCTTTTTTTTTTNGTNGGGGGGGGCCCNAAAAAANGGGGTTNAAAAACN
CCCTTTTTTNCNCCNCCNNNNNNNNNNNTTTTTTTTTTNAAAAAAATTTTTCC
CCNNCAAAAAANNANNNNNNTTTTTNTNNCNCNNTTTTTTTTTTTTTNGGGGGGGGGGN
NNAAAAAATN

Sequence 2714

CCNGGCAGGTACNCGGGGGCGCGTGAGCAGCTGCAGCGGCAGAGGCAGCATCCAGCGGCG
GCGCCAGCAGTTCAGTCCGTTGCTTTACTTTTTGCTTCACCCGACANTTAGTCNTTTA
ATGCCCCGAAAGNAGGAAAAGGTCTTCCAGGAGGAAATAACNAGTAGGGGGNCAAAAA
NGAATNGGGATTCCCAAAAAAGGTAACCTTAAAAANCAANNNGAANGCNCACC
AAAGGGAACGGGTTCTTGCCCAAGGAATTTGTTTCAGNCGAAAAACCTTNNCTTTCCN
ACCCAAAAAACCCTTGTNNANCCCCCAANAAACCCAAAAAGGGAAAAANAACAT
TTTTGCTTTTAGGAAAAGGGAACCTNNTGTTNGGNNAACCCAAAAATTTATTTCTN
GNNGGGGTTTGGCCCTTAAAAAGGGGGGAAAAAGNAAAAAGGGGAGGGGNAAAAA
AAGNNCCAAGGGGNAAAAAGGCCTTTTNGNAAAAANGG

Sequence 2715

CAGTAAATGAACTAATCTACAAGCGTGGTTATGGCAAAATCAATAAGAAGCGAATTGCTT
TGACAGATAACGCTTTGATTGCTCGATCTCTTGGTAAATACCGGCAATCCCTCCNGCAT
TGGGAGGGAATTTGGATTTTCCAATGGAGGAATTCTAANTAACCTGGTTTGGGNAAA
AAAAACCGNCCTTTTTCAAAAAAGGNANGGNGCCAAAAAATTAACCTTTTTCCCTT
NGGTNGGGGGCCCCCCTTTTTCAAAAAATTTTGGGTTCCTTTNCTTTCCCAACC
CGNAAAGGGGGTTNGGGGGAAAAATTGGGAAAAGGGAAAAAAGGGGAACCCCA
NACCCCCCAATTTTTTTTTTGGGTTTAAAGGAAAAAAGGGGGGTTTGGGGNG
AAAGGAAANTTGNCCCTTGGGGCCAAACCAAGGGGGGGAGGGGGGAACCCCAANGNA
ATTCAAAAACCCAAAGGGGGGCCCTTTTAAATTTTAANGGAAAAAAGGGAAAAATTN
NGGAAAAACCTTAAAAAGGGGGNGGNGGTTCTTTAACCCCCATTGGGAAANTTAA
TTTTTTTT

Sequence 2716

ACTTTTTTTTTTTTTTTTTTGTGCAAAAACTCCTTTATTACCATCTCCCTATTACATT
TCTATTCTAGGGTAGTGTTAATCTCAGGGTCTTATTTCTTTAAGCACNGCNAAAAAGGG
CCTTTGGTAGGAAAGTTAGGTGGTAAAGGTTTTCAATCCTTTNATTTTTNTAATCAA
ANGGGGAATTGAAAAAATTCANAAAGGNCCATAGGGGNAGGCCNTNGTTGGGACCTTA
GGGGANCAAATTAACCAGGTTTAGGGTCTTAGGGGGGCAATAAACTTTCCCAAAAC
CAACCATTTTTAAGGGGGGAAAAAAGGCCCCCCAAGTTTTTGGGGAACCCACCNA
GGAGGCCTAATTAGGTTTGGGGCCTTNCAAAACCCCTTTTAAATTTCCAAATTGGAA
NCCAAATTTCCGGGTNGGTTTTTTCNAAACCAATTCCAANTTTTTCCAAAAAAGGT
TTTTTTTTTGGGTNGGGGNAAAAAGGTTTCCTTTCTTTGGTTAAAGGNTTGGGAA
NCCCCAANCCCCCTTGGGAATTNAACCTTNGGCCCTTGGGGGGGGGAAGGGTTT
TTAATTTTTTTTCCC

Sequence 2717

AGGTACTTTTTTTTTTTTTTCTTTTTTTTTTTTTTGGTGGGGGTGTATAGGTCTGGGGAGNGC
CTTTCAGGTGCTGCTCCATAGACATGTGTGTGCCCTGTATAGAAACCGCCCCCATTGTN
TAGAAAAACNCCAGACNCTTNTCCAAANAGNCNNGNTTCTTNACCCATGTAAANNGG
AAGGNTGNGCGTAATTAGGAAAACCAAGGCTCAACCANANAGGGCCAAACCAATTAAT
TAAAAATTCCGGTCTTGAAGACCCTTTGNCCAAAATGNATTACCTTGTCNCCCAATTT
ANAGGGGAAGGCCCTATNTANNTTNTCTCTTTGTCTGGTGGGGCCCCCCCCAACTTT
CAAGGTTTGCCTTNGGNCTNCTTACCTTAAAANTNAGNNAACCAANGGCGGNCCAATNA
AAAAANGGCCAAAGGGGGNCTTGGTTNAAAAAATTAAAAAAAGGTTTTTANTTT
TTAANCCAATTAATAA

Sequence 2718

TABLE 1
444/467

TCGCGGTGGCGGCCGAGGTACANAGTCTTTTGCTTCCTCCCACCCCTAGGGGGAAAACT
GCTTTGTGCTTTGGGAAGTTGTCTCTGAAACCCGGTNGNACAGATTGTACCGTCATTGTA
CCAGGACCTTACNGCANCGNNAANGCNCCGGGNGCAGGGCATTNGGGGGNCCTTGGCCA
AGTCATTGNTTNGNGAAATGNGGAAGGNGGGGATCTTTTACCAAGGAAAGGGGTATGGAA
NGTTANGNAGGNTTCCCNGGTGTAAAGAAAAGGTCCCAATGTNATNAGGACCCCTTGG
GAAGTTAAAANGTCCCCCATGGTAAGCGGTCCCAAGAGGGTTNTTGTANTNTAANGGGA
AGNGGNGATNTGNGGNAAAAAAAGGGATTGNNAAGANCCCAAATTTACGNNGGANATC
CCTTTGGGNGGNGGCCCTTTGGNGTGGAAGAGCCNCCCGATTNTAAANCCAAACCCG
TGCTTACTTTCCCNNTCNCCNNAATTGGTTTTTAAAAAATTANGNACNCAACCCCTT
TTTTTTAANGGGNAAAAAAAAAAAAATTTTTNCAAACCNAAAANGGGTTTTCCCCC
CCCCAAANTTNCCCAAACCAAAAAAAAAAAAAAAAAAATG

Sequence 2719

GCCGAGGTACAAACGGGTTTCCCACCTTGCCAGGGATCCTGGGGACAACAGATGTAAAC
TCCTGAGTCTCTGTGTGTGTGCCTGAGTGGCCAGTCTGCCAGAACTCCACACAGCTCTGT
GTATTGAACCCAAGGCCTTGGTGGCCTGGGCTCATGAGCAGGTCTCCTGATCCATGGATT
GCAGAGATCCATGGGAGAAGCATGATTTCCAGGCAGGGTCGCACATTCACTCATTGCTT
CCCTTGGCTGGGGATTGGGGTTCCCTTTGGCTCTGTGCCACTCCTGGGTGGGCCATTGCCT
CACCTTCTTTCCTCAGTTCTTCGTGGGTGTTTGCCTAGTCAGTCACAATGTGAGAACC
TGGCGATTTCAGTTAA

Sequence 2720

AGGTACACTCGCCAGCGGTTTTGCCACAGGAGTGTACGGGAACAAAGGAGACAGGCTCAT
TTATAATCTGACGCGNCAACCCTNCTGCTGCGTTCCGTTTCCATTGGCTGGGACNGNACC
TCACCTTCTGTATTTGTCCCGACTGGCTAGCACTTAGAACTTTTTAAAAGAGGCAAAGGC
ATACAGAGANCAAAGGAAGGAGGAAGTNACTTGTGGAATATTGAGAAAGGTAAAAACACC
TTTAAATAAGGAAGAGGAACAGGCTATGACCTAATGCTTGTNGGATCAGTATAAGCATG
TTAGGGCAAATATTTANGCTAAATTGTGGGAGCTAAGAACATAAAGTATATTGATTTTTT
ATTATGGCTAGCA

Sequence 2721

AGGTACAAATTTAATTTTTCTGCTTGCCCNNGGAAACAAAGCTTCTGTGGAACCATGGAAGA
AGATGAAAATGAGACTGGCAAAGAACAAATGCTGAATCTGAAGAAGAGGACAACCTTGGG
CAAATAATCTGCATACTTTTAATTGGGAATAAGATGGAAAATATGAATGCTAAATCAAAT
TTTTAANNNATACACCACACGATACGACTCCCCGCGTACATCTTTGCTGTGGCTCACAG
ATTGTTCTCCCATTTCCCCTTGCCGCTTTTGCCTATCGATGGGTAGCAAGAGTCTTTGA
AATAAGCCCATTTGAGCCCTGGATAACAAGGGATAAAGTGGAGCGGATGCACATCACAGA
CATGAAATTGCCTCACC

Sequence 2722

CCGGGCAGGTACTTT
TTGGG
GGNAAAAAANNTTTNNNAANANNNNGANAAAAAANNGGGGAACNNNNNGGGGNNCNC
NCCCCCNAAAAAANGNNCCCCCCCCNNAANNNAAAAAAANNANTTTTCAAAAAANAAAA
AANGGGAANTTTTTTANCNAAAAAAANNTTTNTNTAAANNNNNTNTNNGGGGGNGGNGN
TTTTNAAAAAANAAAAAANAAAAA

Sequence 2723

GAGAANGACACCATGTGCCTCAGAACTGCTCGGTGACAGCGGTGATAGCGAGCCACGCAT
TCACAGGGCCACTGCTGCTCACAGAAGCAGTGAGGATGATGCCAGGATGATGTCTGCCTC
GCGCTGGCTGGGACTCTGATCCCAGCCATGGCCTTCTCTCCTGCGTGAGACCAGAAAG
CTGGGAGCCCTGCGTGGAGGTATGTGGCTGGAGTCAGCTCCTCTGAACCTTCCCTCACTT
CTGCCAGAACTTCTCACTGTGTGCCCTGGTTTGTATTTTTGCAAAAAAAAAAAAAA
AAAAGTACCTGCCCCG

Sequence 2724

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTTTCCAATGA

TABLE 1

445/467

ATGGTAACTGATCCAGGCACGTTATCACACTTCCTAGTCATCTCCACCTTTCCTGTATTG
CCTGTGGCTTGTGTTTAAAGATTAAGAATCAAAGAGATTAAGAAGTATCACTTCAAGTCT
TGCTCTGCTCACTTCTATGTTTGCAGTCAAATTATTCCTTATGTTGGTGACCTAAAGAGA
ATTACTTTCATTCAATTCATTTCCCCCGTAGCAGATGGAAGTGAGAAACCTCTGAGAAAA
TGAAAACATCCTTAACCACTATCTTCCCTTTTATTTGATTATTTTATGTCAGAAATTTG
CAAAAGTTTTTTCTCCTCCTTCTCTTCCCTTGTGCTTAACTTTTTAATTCATGCCATAT
GCAGATATCCAATTATGTGCATCCTGTGAATAAACACGCTTGGTCACTGTCATATTTT
GAACCATCTCATCAGAGATGAATAATA

Sequence 2725

CCGCGGTGGCGGCCGAGGTACGTATTACTGTTTCCATTATATGTTACAAATGAAATGAA
CACATTCTCATAAGTTAAAAAATATAGAATATATATTTTTCTTTTTCTTTTTCTTTTT
TTTTCTGAGACAGAGTCTCGTTCTGTCACCCAGGCTGGAGGCTAAGGTGGGAGGATCAC
TTGAGGCCAGGAGTTTGAATCAGCCTGAGCAACATAGTGAGACCCCATCTCTAAAAAA
AAAATAAGAAATAAAAAATCAGCGACGAGGCATAGCGGCTCATGCCTGTAATCCCAGCACT
TTGGGAGGCCAAGGCAGGCAGGTGCTTGAAGTCAAGGAGTTAAGACCAGTCTGGCCAAA
TGGGGGAAACCCCTTTTTCTTAAAAAANTNCCTTTTTTTTCCCCCATNGGGGGGAAN
NCCCCNTTTTTCCCNCCNCCNNGGGGGGGGGGGGGGGGGGAACCCCCCCCCCCCC

Sequence 2726

CCGCGGTGGCGGCCGCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTCCAAAACAA
AACATGCTTAGCATGCACACTTTTACCACTTTTTTCGAGNGGAAAGTTTATTGGCAATAT
TAAATTTACCCTAGATAGGATATGAGAATGTTTTGATAAATCACAATTTATAGTATATT
AATGCCATGTGAGAATTTTGTTCCTCAAGTAAGAGCTCACATGGAACCTGGTCATTAAC
CTTAAAGAAACCTTTCTCACATATCTATAGGCCTCAAATTGAAATAATCTATAAATGAAT
TTGTAGATTTCTTTTTAGTTTAATTCCTGAGTATACAGGGCAAAGCTTATNTCCTTTAT
ATAAAGCTTCTGCTTGGTCTAAAGTATATCTTACGTTGAGGTTTCTCTGAAATG
CACCACGTTTGTGCTTCAATATGAATTTGTATGGCTATAAAATTGNGC

Sequence 2727

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTCGGGACTTTAGATA
GCTGGATTATTCTTCTTTTCTTTTTGTCTTTCATGTAGTTATTAATGAGATGGATATA
AAACCAACTACTAGGTNCATATCCCCAAAAATGAAGTCAATATGTTGAAGAGATATCTG
AACTCTCATGATTATTGCAAGACTATTCACAATAGCCAAGATNGGGAATCAACCTAAGTA
TCCATCAACAGATGAGGNGATAAAGATAATGTAGCATATNTATACAACAGAAATNTATCA
GCCTTAACANCAACAAAAATAATNTTGTCAATTAAGACAACACAGATAAACCT

Sequence 2728

GCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACAACCTCCACTAACCTGGGAACCTT
GCCCCATCCCCATAGCANCCACAGCGAGACCTGCCCAAGGAGAGTCTGAGCTCAGACA
TGCTAGCCCTGCCCAACTTGATGGGCCTTCTATCTACCCTGGTAGCTGAAGGCAAAG
GACATATACCCTTGGGAGTTCTAGGGCCCCGCCATCGCCAGTTCCTCTCCATACTACCA
CAGCTGATGCTCTCTGGGAAGTGCCACCTCCAGCAGCAGGCCAATCAGCACAAAAATAG
AACATTAACCAACCAAGCTAANAACCTCAGAGAATCCATTTACCCCCCT

Sequence 2729

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTCCCTGTATTTTCTTTTTCCC
GAGATGAAGTCATGCTCTGTTGCTCAGGCTGGAGTGAGTAGTGATCTCGGCTCACTG
CAACCTCCGCTTCCCAGGTTCAAGCGATTATCCTGCCTCAGCCTCCAAGTAGTGATGAT
TACAGGCATGCATCACCATGTCTGGCTAGTTTTTGTATTTTATGAGACAGAGCTTCA
CCATGTTTGCCAGGCTGGTCTCAAACCCCTGACTTCAGGTGATCCACCTGCCTCAGCCTC
CTAGAGTGCTGGGATTACAGGAATGAGCGACCACACCTGGTTTGTCTTAAAAAACATC
TTATATTTCTCTGCTTAAACGNGCTCAATGTTGAACATGTGAAATATAATAACTTTTCATA
ATCTCTTCTGATTCTGGCTCTATATCATCTTGGGGNCTGGTTTAAANGGAATTCTAATT
TTCTTGGCAAT

Sequence 2730

TABLE 1

446/467

CTATAGGGCGAATTGGAGCTCCCCGNGGTGGCGGCCGAGGTACACGAGTCTTTTGCTTNC
TCCCACCCCTAGGGGGAAAACTGCTTTGTGCTTTGGGAAGTTGTCTGTGAAACCCGGGG
ACAGAGGACNCANGACAGACTAGGANNGGAGCCGNGAGGATGGGCTGCANCTGTNGAGGA
GGGTTTCANAGGANAGNGGTCNGATAGCACCAGGCCTGAGAAGCCATAGCCTAGGTGGAN
AGAGGTTTAAAAGNGACANAGCGGGCTGATTANCTGCCGTANACNCTTTNATNCCATGTT
ANATAAACATNNTTNAAAAACCCTTCNTNTTGTTCCAATNNTANAAAAATTAANCCCGG
GCNATGGGGGGGCGTCCCCCTNGTNATTNCTNTTTTAATNAANAGAAAGGGNTTGNCC
CCGGGTNANTTTTANTTTTNTNACTTTNNGGGNGGTTTNTNTTTATNNTTNTNANAAAA
ANAATTGGGGNGNTNTTCAAANNNTTTNNTTGTNNAATNTTTTATATTNTTTTTTT
TTNANCTNNCCNTNNAACAAAATTTTTTTTTNTNTNNCATATAAAAAAA

Sequence 2731

GGAGCTCNCCGCGGTGGCGGCCGCCGCGGCAGGTACTAGTTATTTTAAATCCACTCATA
ACTTATCGGCCAAAAGTAGTCACATGGGTCCACNTAATNACAAGNGGAGCGGGAAGTGCA
ATCCTACCTTGCTGGGGAAGGTATAGAGATAGACCAGCNCTAATGACTACCACACTNG
CTAAGGTNACATAATAAATAAGCATCAGGACATTATGTGTGGNGGCTCATGTCTATAATC
CCAGCNCTT

Sequence 2732

CTATAGGGCGNATTGNAGCTCCCCGCGGTGGCGGCCGTGNGCNCGGAGNTGGTATTGACA
TAGCCTTTGTAGAAACAGTGCTTGAGTTCGCTTCNTCTTCGGAATAAACTTGGTCTGA
TTCACCCCGGGCGTCCCAGGAGGGTGACAGTGAACAGTGGAGCGATAAATCCGGCATTG
GCGGTGAGATTAAA

Sequence 2733

AGGCGGGCGGCNGCCNCNCNCCNGGTACCTGATAAAAAATTTANTNCTCCTTGGCCAGGCA
TGGNNNCTCACACCNGTAATCCCAGCACTTTGGGAGGCCAAGGCCAGCANGTTGCTTGAG
CTCAGGAGTTTGAGACCAGCCTGAGCAATATGGCGAAACCCCATCTCTACAAAATATACA
AACATTANCCAGGTGTGGTGGCNAACGCTTTCAGTCCGAGCTACTGATGAGGCTGAAGTG
GGAGGATGGCTTGAGCCTGGGAAGTGGAGGTTTCAGTTGAGCTTGAGTTTATGCCATTG
AACTCCAGCCTTGCGGACGGGNAGACNCTNTTTTNAAGAATTTGGAAAAAAAAAAGG
GAAAAAAAAAANNNNANGNCCCTTGGGCGGNNATTTNAAAAANATGCNCCNCCCCCCCC
GGGGGNTTTNNGAAATTTTANTTTTANAAGTTTTTTCNNNCCCCNGGGGGGGGGGGGG
GGGGGGGNGCCCCNNAANNNTTTTTTTTTTTTATTTAAGGGGGANGGNCCCCCCCCNAA
AAAAAANATNTTTNTTTNTNTNNTNCCNTTNNNNANNNTANAAAAAAGN
GGGGGGGGGGGGGG

Sequence 2734

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTATGAGATGGAGTCTC
GCTCTGTTGCCAGGCTGGNGTGCAGTGGTGTGATCTCAGCTCACTGCAAGCTCCACCTC
CTGGGTTACGCCATTCTCCTGCCTCAGCTTCCCAAGTAGCTGGGACTACAGGCACCTGC
CACCACACCCGGCTAATTTTGGTTTTGTATTTTAGTAGAGACAGGGTTTCACTGTGTTA
GCCAGGATGGTCTCGATCTCCGACCTNGTGATCCGCCCCGCTCAGCCTCCCAAAGTGCT
GGGATTACAAGTATGAGCCACTGAGCCCGGCCTCTCTGTAGCTTTTAAGATGTTCTTAGG
TGACTTATGAGAATGAAAAATGGAGAATTTTCCGTCTTCCTGCCATGAAATCAATTAAT
GGCAATTGCTACTGAAAGCTGTTCTGTTTT

Sequence 2735

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTGG
GGGGTTGCTATTATTGTTATTGTTCTAGATGAATGTGNGAAGCCAAATTATTCAGTGTCT
TTAAAGACCATATTAATAAATCCTGCCAGGCGCAGCAGCACGTGCCCATGATCCCACTA
CTTGGGAGGCTGAGGCAGAAGGATCGCCTGAGTCCAGAAATGCTGGGCTATAGTGCCTA
AGTCAATTGGGTATCTGCACTAAGTTCCGCATAAACGTGAGGGACCACAAGGTTGCCTAA
GGAGAGGTGAACCAGACCAGCCTGGAAACAGAGCAAGTCAAACTCCTGTCCTGATGAAG
TAGTGGGACTGCACCTGTGCATAACCACTGTACCTGCCCCG

Sequence 2736

TABLE 1

447/467

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGACAGACGAGATCTCGAT
CGAAGGCGAGATGGCGGACGTGCTAGATCTTCACGAGGCTGGGGGCGAAGATTCGCCAT
GGATGAGGATGGGGACNAGAGCATTCAAACTGAAAGA

Sequence 2737

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATTAACAAAAACAGTTTAT
GTGCAAGGTGTATAAGAAAAAGTAAACATACCTTTGGTAAAAAGATTATAAAGGGGCATA
AGAATGTGGATTTTACCTACATTAAAGGGTTAAAAACAATTATTGTTTTAAAGTTTAA
GCAAGTTTTAAACGTTAATTATAAAGAAAATTCTGTGTGTAACATATTAGCTAAAGTT
AAAAAGGTATCATCCAGTTTTCTGTGAACCTGGACATTAAAGTAAAAAATGCCACAGGTT
TTTCTTAAAGCATCAACCTGCTCTTAAACAAAAATTATAAAAGGTTAAAAAGAGTCTATA
AAATCTTACCTTATGGTCAAACATGAAAAATTGGATAAATATGTCTCAAGGGTTTATTAA
AATTCAGTTTAAATTAATAACACACTAATATAAAGGTAAATTTAGCTTATCTGGTAT
AAAAATCATACNAGAAACATTATTAATATNAAATGGGGT

Sequence 2738

TCTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTTTTTTTTGAGACAGNCTCCCTCTGTACCTAGGCTGGAGNGCAGTGGNACGATCTTGG
GTCACTGAAACCTCCGCTACTGGGTTCAAGCAGGTCTCCTGCCTCAGCCTCCCCAGTCG
CTGGGATTACAGGCACATGCCACCACACCTGGCTAATTTTTGTATTTTAGTAGAGACGG
GGGTCTNACCATGTTGGCCAGGCTGGTCTTGAACCTCCTGACCTTAGCTGATCCACCTGCC
CTGGGCTCCCAAAGNGCTGGAATTACAGGCGTGAACCACTGNACCCAGCCNNTTGACCTG
TTNTTATTATTTGNGGTTAATGCCAAATNTAAAATAATGTTTATGTATAAAGCCCCAT
NTCAGAGGGGGGAANTTTTTTAAACAANAATTCTTTTTTTTAAGGAAAAAAGGTT
TGTNTTTTGTTCANCCCTNTTTATTCAANGGNTNANCTTTCANAAAAATGANTAATA
ATTCCTTTTTTTCC

Sequence 2739

TNTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTACGAAGCCATCTTGGCT
CTGTGGAACCAGCTCTACATCAACATGAAGAGCCTGGTGTNCTGGCACTACTGCATGATT
GACATAGAGAAGATCAGGGCCATGACAATCGCCAAGGTATGTCCTCAGGGCCACTTAGGC
TGCTTGAGAGGAGGGCAGCGCTGCCCCCGCAGTGCCTGTGTCCAACAGTTCAACCTTCT
TGCTGTGTAGCAGTGCTTTTGTGTCTCGTNAAGCAAGTCAGCTCACCCTCCTTAGAGGT
TCTGGTCTGTCCAATAGAGAACGGGNGGGATTAGCATATGGCTGATTATGAGAGAAAGAA
GCAATNCTAATTTAGGGTGGCCTGACAAGCAAGCCAGAATTGCCTGTGGAAGTTATTG
CACTCCTGTAAGAATTCTGGACCCTATTGCTCCTTTGATGTAATGGAAAGTTAG

Sequence 2740

TNTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACGCGGGAAGTGA
ACTGAGGGCCACCCTGGGAGGAAGCCGACTAGGCGAATTCATTACTGACCGGCCTGGGC
TGCTCTGAGACATGGAGGAAGCCAGTGAAGGTGGAGGAAATGATCGTGTGCGGAACCTGC
AAAGTGGGGGTGGGGGAGTTAANANTATTATCCCANATTGNGGGGCGGGATCCTGCCC
CGGGGGGAAAACCTTGGAACATCTCCGCAATAAGACAGA

Sequence 2741

GGGCANGGTACCCACTTGGATGACTGGGGAGAAGGGCTGGGCTGCTGCTGGGGAGTAACA
CAGGCCTTGGGGCAGGGTTCAGGAGTTCATTAGTCTGGAGTCCAGATCGCCACCCAGGGC
CCAGCCTGATGTAGTGTTCGCGTCTCTCAGCGCTGCAGTTTTCCGATAAAGGAGAGGAC
TCCTGTGTGCCAGAGCTCTGAATGGGAGCCTCTTCTCAGTCCAGCCAGGCAGAGGGTGAG
GCTGCCACCTTATGGCCACTGGGGGAATTGGCTCTGGGCTTGGACTCCAATAAGGGGCCG
GGAGCTGCAGAGACCTCCAAAAGGTCTCTTAAGTAGTCTCCAAA

Sequence 2742

CCGCGGTGGCGGCCGAGGTACTGCCATACCTGGCTAATTTATTTTTTGTGGAGATGGGAT
CTCACTTTGTTGTCCAATCTGTTCTCAAACCTTTGGCTTCAAGTGAGCCTCCTGCCTCTG
CCTCCCAAAATATTGGAATTATTGGCATGAGTCACCATGCCAGATCAAGAAAATATTTAT
GTATAATTTATCATACCTCATTGGTCCTAATGTTTTTTGCTTGTAGGTCCCTTCTA

TABLE 1

448/467

GAGATAGGAGAAGAGAGAGATCCCTTTCTCGGGGAGAGAAATNCAAGCCGTCCCGATCCT
CTTAGGGCTNGGAGGTAAAATCNTTTGATAACTTTGTATTNAAAACCTTTGCATCCATAGT
ATGCTAAGGCNTTNTTTANCCCAAAAAATTTNCCTTAAAAGTTTTTTNGAATTNGCNC
AAAAAGGGCCCCNAANACCCAAGNNAAGGGNNGGNCTTTTTTTTT

Sequence 2743

CCGGGCAGGTACTTT
TT
TTTTTCCCCNGGNNNNAAAAATTTTAAANNNGNNGGAAAAAAAANNCNGGGGAAAAANG
NNCCNTTNTNNNAANCCNTNAANNAAAAAAANNCCNNNAAAAANNAAAAAAACCCCAA
AANNNNNTNNAAAAAANCNTNGGNNAAAAAAAGGGGGGNGNNAANTTTNNNNCCC
CAAAAAANGGTNNGGNNGGAAAAAATTNNTTNCAANCCANAANTTNANTNCAAAAAAN
CCNTNNTTCCNTGNCCNTNAAAAAANGGGNACCCCCNGGGGGGANANAATANNAAAA
AAATTTANTTTAACCCCCCCCCCAA

Sequence 2744

GGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTGAGACGGA
GTCTTGCTCTGTGCGCCAGGCTGGAGTGCACTGGTGCATCTCGGCCACTGCAAGCTTC
GCCTCCTGGGTTACACCACTTCTCCTGCCTCAGCCTACTGAGTAGCTGAGACTACAGGCA
CCCGCCACCACGCCCGGCTAATTTTTTGTATTTTAGNAGAGAGGGCGTTTCACTGTGTT
AGCCAGGATCGTCTTGATCTCCTGACCTCGNGATCTGCTCGCCTCGGCCTCCCAAAGTGC
TGGGCTTACAGGCGTGAGCCACCACACCCGGCCAGTCTTGTGTCTTAAATACCATTTCC
ACATTGACACCTCCAGAATATTTATCTCTAAACCTGACCTCCAGAAGGTGCAAGCANATT
GTGTAAACCATGTCTCCACTACACGCCTAAAGGCA

Sequence 2745

CCGGGAGGTGTCCGAACAGGCAGGTTGGTGGGTAAAGGTCTTAATCTTGACTCGAGATC
TCTCCCCGGAGTTCACAGAGTAGGCGACGAAGCCGAAGCAGCTGGAGCGCGACCCGGAGG
AGTCTGACTTCTCGTTGTCTTCATAATTTTCATTCTGTTGCTTTCTTCATGGACTTGCGGC
TGGGGGAGGATCCCCGCTGGTCCCGAGCANGCGGGCGGGTAAAGGTAGGCCGCGAGAGC
CAGGTTATNGAGAGGAGAGGAGGC

Sequence 2746

AGGTACCTGTGACTAACAAGGGGTCTGGGAGGATCTGCTGCTCCCATGCCCTCCTTTGTG
TGTTTTAAATCTGTTTGAGCCTTCTGGGCTCCTGCGAATTAGGGAGTGGCAGCTCCTCAG
TCTAACTCCTATTGNGACCAGGTTGCCTAATTGGCCCTTTGGTTTGGGCACCCACTGTCC
TTCTGCGTGGTTGGATAGATGCTGCTCCCAATGTCCCTGATCTCTTACAGACCCCTCTGA
TTCTTCACTCTTGGCTTTGAGAGCCCCTGATGCCCTGCAGTCTTGACTGAGCTTCTAATG
GTTGATCAGACCCTTGAATGTTGAGCTCTTCCATACTAGACTTGAATATTCTCCTG

Sequence 2747

GGCGGCCGCCCGGGCANGGTACANGACATTTTCAAAGTTGCCAGTGTTACTTTAATTGGA
CTGCCTTCGTAATTCATTGCCTCTGCTTCAACAATGTGCAACTCATCCTTTGCACCAGCC
CCTAAACTGACCGTTCTTAAAGATAGCTGGTGCTCATTTTCATCATTATCCACCTTAAAG
NGATAACTCTTTGTGGCCTTTAGTTCACAACCGAAAAGATAGTTCTGGGGCCTNAGGGGG
CTCATGTCCATGTCGAATCTTCCATNNGGNGGCGGCACNCNNTTTTTNTAGNAAAG
AAGGCGGNCGGAANATAAAAAAACTNCTCCAAAAAACACCCGGNGCANGGAGGGNA
NTCANACCAGGGGCCCGCTTNCCTNGGATCTTTNATAAAAAAATNGGGGNCNCCCN
CNGNGNNNGGNNGNAAATTCTAATNNTAAANTTTTTANCCCCCCCCCCCCCTNNGGG
GGG

Sequence 2748

CCGGGCAGGACTTGGGAAGCTGAGGCATAAGAATCACTTGAACCCGGGAGGTGGAGGTTG
CAGAGTGAGCCAAGATCGCAGCACTGCACTCTAGTCTGGGTGACAGAGCAAGACTCTGTC
TCAAAAAAAGACTAGAGAATGTCAGGGAACACATGTGTATTTTAAACAACCTTAC
TTTGCAATTAATAACTCGAAGGACAGCGAAGGTGAAATCAATTCACGGGCCACCTAACT
TTTCAGTCTAGGACTNAGAGCTTGTANCCATNGATCTGTNNGGNTTGNACCTCGGGCCGN

TABLE 1

449/467

TTCTANAAGTAGTNGNATCCCCGGCT

Sequence 2749

CCGGGCAGGTACAACATGAGACATGACGCCCTTCGGGACACATGCCTGAGGTAGTGACAA
TCCAACCTTTGGAAGAGTGGAAGCCCTAGTTTCAAATTCAGCATGCTTTGAGTATAAAT
AAGTTTACCTCTTTTGCACAGCAACATGGCCAATCTTCTAAGCTGCTCAGCTTACAA
GAAAAGGAATCATACTGCTAAGAAATCAAACCTTCAGCAGTCATAGGTAAAGTAAGGGAAG
TTTTNTAAACNTATTTTGTAGCCCCNTACCCNGAACCCCTNGNAAATTTTNGCNAGGGTT
TTTTCAATTTTTCNAGGGACAGGTTGGGGTTTCTNCTTTAAATCCANAGGGCCTTTGGAA
NACCNTGGAANAACAGACCCCTTTAAAAAAGG

Sequence 2750

CCGCGGTGGCGGGGTTTCGCCATGTTGGCCAGTCTGGTCTTGAACCTCCTGACCTCAAGTG
ATCCACCCACCTTAGCCTCCACAGTGTGGGATTACAGGCATGAGTCACCACACCCGGC
CAGTAGAACTCTTTAAACCTGAAAAATCAGTCAACTTTGCAGACTAGAGGAGGATGTTGA
ACACCTATGTGTGTATTTTTTTCTTTACCAACTATGCACCTATTTTTCAGACACCTAA
AGTAATGTCTGTGAAACAGTGGGTTTTCTTTT

Sequence 2751

CCGGGCGAATTGGAGCTCCCCCNGTGGCGGNCGCCCGGGCAGGTACAATGCTTATAAAA
TTCAATAATTTGTATTAAAAATACAAAATCCNATAACAACCAGGAGTTCTTCGGAAGAAAA
AAAAATCACAAAACAACCCCAACAGTGGTGAAGAACTA

Sequence 2752

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCAAAAGCTCCAGATTATTTGAAACCA
TGTTTTCTTCTAGTCCATGGTAACAAGAAAAAGCCANTGGAAGCATCATTCCAAACAAT
AATCTCAAAGATGGTGGCAACCAAGTGTCAAATGGGGACTGCAGGCACAGAGAGACCA
CCCCAAACCTGCCTGGGTGGACGAAGCAGGTATGCTAGAATAGTCTGTCTGCAGAAT
AGGGAACGGCAGCTTGGTGCATCTGTGCCCTGGAAAAAGAAAATGAGTTGCAATAGAAT
GACTNTAAGACAGACAATGAACCTACTNTTAAGAGAGACAGGGCCAGGCACGGTGGCTCA
CGCCTGTATCCAGCACTTTGGGAGGCTTNAGGCGG

Sequence 2753

GGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGCAGAGACAATGGAATAAACAGCCAAG
AATGTTAAATAGCTATTATAAATATGATCCTTATGCTCATAGAGAAAAGGAAAAATATA
AGTATAATGTGAAAAGAAATGGAAGATATAAAAAGAAATGCAACTTCTAGAGGTGAAAA
TATGTCTGAAATGAAAACACCATATAGATGGAATTACCAGGAAATTAGACACTGCAGAAG
AAAAAATCCATGATGTTGAAGTATATTGCAATTAAGAACTATCCAAAATGAACTGAGAG
GGGGAAAAAGCCCCGTAATGTATGAAGAAAGCCTCAGTGACCTGTGAGACAATATCAC
AATGGCCTAACATAAGTGTAATTTGGAATCCCCAGAAGGGGTAGCAGGCCCGAAAAAAT
AATTGTTGAATAAAGGNCAAAAGGTTTTCCC

Sequence 2754

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTATTTTTTTTTTTT
TTTTTTGAGANAGTGNGTGACTNTGNCACCAAGGCTGGAGGGNNGNGNAAGANCATAG
NTCACTGAAGCCTCCATNTNTGAGTTNAAGGGATCCTCCCGCCTCANTCTCCNAAGCTA
AATTTTTTTTTTTTTTTTTTTAGNAANANACATGGTTTCACTATNTTTGCCAGGCCAG
GTCTAAACCTTNCTNACTTNAANGCAANTNNCTTCTNCCCTTAANCCTTCCCAAGGGN
TTTTGGNATANNNNTNANACNCAGNCCCTTNTNCCCTGGGCTCTTTCNTTNTTAAAGAAAG
GACACTTTAAATCANTTTTTNCNCNCNCAGAGATNAATTGNGCAACAAACANTATTANGT
TGGGGTTTTATTNAGGGTCTTNCCCCGNNNGGTCCCTTTNANAAAAANNNTNNGGGAAN
CCCCCCCCGNGTNTGGGGGGANTTNTNANNNTNCAANTTTATTTATTNCCCCCCCCCCCC
NTCG

Sequence 2755

CGCGGGGGCGGCCGGAANGNCCNGGAANGGNAGTCANGCAGGGAGCGTCTGTCCGAAC
GGAGGCTAGGTAAGAATATTTACCATGAAAATGTTAAAAGACATAAAGGAAGGAGCTAA
ACAATATGGACCCANCTCTCCTTATATGAGAACGTTATTAGATTCCATTGCTCGTGGAAG

TABLE 1
450/467

TAGACTTATTCCTTATGATTGGGAAATTTACCTAAATCTTCCCTTTCACCCTCTCAGTA
TCTACAGTTTAAACCTGGTGGATTGATGGAGTACCTCGGCCGCTCTAGAACTAGGGGGA
TCCC

Sequence 2756

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTGGAGNGAAACAGGAGTGCTTATGGTCTGAGTGGAGTGTTG
GGAGGAGTNCCTCCCGGNTCCTGCCTTGGGGCTCACCTCCCG

Sequence 2757

CCGCGGTGGCGGCCGAGGTACATCTTCTCCTAAAAACAAGGGTAGAGCCAATGGAAAGTA
ATGGTTCTGTTACATAGAATGAGTTGTCGCTTGATCTTAAATGATGTATTGGTAGATAT
ACTTCCCAAGTGGATTAAGTAACTTACAGCATAACAAAGTATTAGACTTACTGA
GGTGACTTGAATATCTCCTTTGATTTTCACTCTATTTTCTTTTCACCCATGGGAAAT
GATAATTTTTAATAAACCAAGGCTCTTACCATAGCTGAACTTTAACTTAGACTGTCT
TTTCTGTAAACGATTCTGAGGCAAAGGGAAATGACTAGAAGAGGATGAGTAAACAATAAC
CTGAAATGGGAACTCGAGGGAAGCACAGGCTTTTTTTTGGTTTGTGTTGGTTGATNCGT
TTTTTGGTCTTTG

Sequence 2758

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGGCCGGTGGGGCT
CCCTGACATCCCTTCCAGGCAACCTGAAAGCACTGAAATAGCTTATGGCCCTGTGCCAGG
GACCTTGGCCCAAGCTGCTGACCTCCAGGGTGGGGAGGGAGCTACCCCAAGGAGAAGAGT
CACTCAGACAGCAGTATGAGCAAGCCAGCCAGCAGCTCCGTGCCTGCACCCAGCTCAGGG
GAATCCCAGGGGGTTGAGTCCCAGGAAGGAAAAGGGGACAGCGCTACTGCTATGGAAT
GAGACCACCACTTCTCCTGTTGTCCTTCCAGCTTCTCCCAACCTCCCTTTTCTAGT
TTATAAGACAGGAGAAAAGGGGAGAAAAGCTGGAAGAAACAGAAGTAAGATAA
ATAGCTAGACGACCTTGGCGCCCCACCTGGCCTGGGNNGG

Sequence 2759

CCGCGGTGGCGGCCGCCCGGGCAGGTACAGAAAATTAGCAAGAGACATTTTCTGCATTGT
GAGAAATCAACATAGACACCTTAAAGACCCCTTTGAGAGTGTGGCTTTTGAACTTTCA
GATTTTGCTCAGTGACCTGCTAACACTTACGTGAGAGGCTCCAGGTGTAATAGAATCTA
ATGGCAGAATCTGTAAGTGTAAACAAGCATCTTAGGAGTGAGAGATCAAGACCACAAAAT
GTCCAGAGCTATGACCACAGCTATACCTACCCATAAAATACGATACTGGAGTAGGGTATT
TTTGCTTTTTTTCTTACCTAAGAGCTAGCTAATCAGGACAGGTGATGCAGGTTCTGGAG
CTCTACCAGGGCAAGTTCTATTTTCTTTTTTGGAGACAGAGTCTCACTGTCCGCCTG

Sequence 2760

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTCGAATATTNCTTT
CAGTGTTCTCAGATTGACTTGACCAGCCTAAGACAGATGCCAGGGACATCCTCTTNTNTG
CCTNTNAACACTTCAGTCAGATGGGAATATGGAAGGATCATATNCAAGAGGATCATATTT
TNTGAAGCCAATCCATTANATGTCAGGAAA

Sequence 2761

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTGTAGATGTTCTTTGGTATCTGGGCA
TTGAAGAATTAGGTATTTATTATAATCTTCACAGTCTGAGCTTGTTCGTAGTGGTCCTTC
TTGGAAGGCTTTCTAGATATTCAGAAGGACCGTAGGTGTTGTGATCTAAGCTGTATCTG
CTTTAGAGGGCACCCGAAGCCCCGTAATGCTCTGGTTCTTGACAGACTTCTGGAGATACTG
CCTTGATGGTCTTGATAAGATTTGAAGAATCCTCTGGATTATCAGGCAGAGACTCTTA
TTCTCTTCTCACTTTTTCCAGAGTCTTTCTATGCTGAGCTCTCTGGAGCTGGGGGAG
G

Sequence 2762

TNNCCGCGGTGGCGGCCGAGGTACTGTCCAACCAAACTTTCCACNGNGAAAATTTTCTT
GGGTGAGCCTCCAGAAAAGCCAGCTTAGTGTAAGCCAAAGACCTCCCAAGTCTGTCAC
CAATTTTTTCCCTATTACTCACCTGATCATGTGGGCAATATCCAGTTGGTCTCTGTAGA
CAATGGTCCCTCTATTTCAACACCTTTTTCGGTGACAGTGGCGATTTGAACTGGAAGAA

TABLE 1
451/467

AGCAGAGCATTCAATAATGCCACGCCTTAAGTCCTTAAATGAAAGGTCAGGTGGAGGTC
TTCCCCAATGTGAAAATAGGAGTCACACAAGTAAGGCGNATCTGTTCTTCAAAGCATAGG
CTC

Sequence 2763

AGGTACTATAATCTCCTTCTCCACTGGCAAACAGATTATACCAGAAAACAGCAGTTCCTT
ATGGAGAACAATTTACAATTATCCCCAAGTATACAATGCCAGGTAATTGCTTTCGGTAG
TTATTACTTTTTTTTTTTTGGAGACAGAGTCTTTGCTCTATCGCCCAGGCTTGGAGTGCAA
TGGCTCGATCTTCAGCTCACTGCAACCTCC

Sequence 2764

GCGGNCGAGGNACAANCNACTTGGGGGGGCGANAAAAACNGCCCCCCCCACGANGAGAAGG
GGACNANGAGAAANNNTTACACACAAGNGGGGGANNNCCCCNAAAAAACCGGGCGCAGN
GGCNACACNNNGNAANNCCAGNACNNNNGGGAGGCCGAGGCTNTTNNAAAAAATTNNT
TTNGAGGGGGGGGGGGCCCCCGN

Sequence 2765

CCGGGCAGGTACGCGGGNTTCCGCGGGGCTTGCTGGGAAGAGAGGCGAAGCCAGGTCACC
TTTCAAGGACCCAGAAGTAGGGTTTTGGCCTAGGTAACCGGGGCAGAGATGTGGTTCGAG
ATTCTCCCCGGAATCTCCGTCATGGGCGTGTGCTTGTGATTCCAGGACTGGCTACTGTT
TNCCT

Sequence 2766

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACTACCCTCTGCTTTTGCAAG
GACTCTACTGTGTATCTTAAGTGAGACAGGTGCATATGTATACTAGTAAATTTCTCTGC
TTTCCTAGCATTGGACAAAAACAAAATCAACAAAAGAATTGCCTCAGTGTCTTAAACTG
GGATCCTTACTAGTTGACTAGGCACCTTAGTTACTGAAGGATATGTGTGGAATTCAGTTT
TTTTCAACCTATAAGAAATATCCGGCCAGGTGCAGTGGCTCACGCCTGTAATCCCAGCAC
TTTTGGGAGGCCGAGGCAGGAGGATCACAAGGTGAGGATTNTCAAGACCNGCCTGGCCAA
CATAGTGAAATTCCTGNCTTCTACTAAAAATN

Sequence 2767

CGGCCGCCCGGGCAGGTACTATTACTAGGTTTATTGTTTCCAGAGGGGTGAAACGGGGCT
TTGGAGAGGTTAAATACTTGCCAGGGTCACACAGCTATTAAGTGGTAAAGCTGGGATT
TACATGAGCCCAGACAAAGAACCCAAGAAGCTAAGCTATTNTCTTGTAACTNCAACA
TAGGAGGCAAGAAGTGAGGTATTATACAGTTGAGGAGATA

Sequence 2768

CCGGGCAGGTACGCGGGCATCAGCTCCGTGGGAACTCACGAGCCTGGGGAGAGTTCGTCA
TCCCCACATGGAACCTCAGTATGGCCAACAGGCAGCCCTCTGGTGGAAAAATCAACAATC
AGTCCTTGCANCAACTTGATGGAACNCTAGTTGACCACCATAAAGATGTCAAGCCAGGCA
GCA

Sequence 2769

AGGTACTACTGCTGAGGTCTCCAGGACAGAAGTCACCTCCTCTGGTAGAACATCCATCCC
TGGCCCTTCTCAGTCCACAGTTTTGCCAGAAATATCCACAAGAACAATGACAAGGCTCTT
TGCTCGCCACCATGACAGAATCAGCAGAAATGACCATCCCCACTCAAACAGGTCCTTC
TGGGTCTACCTCACAGGATACCTTACCTTGGACACACCCACCACAAAGTCCCAGGCAAA
GACTCATTCAACTTTGGCTCAGAGATTTCCACACTCAGAGATGACCACTCTCATGAGCAG
AGGTCCTGGAGATATGTCATGGCAAAGCTCTCCCTCTTCTGGAAAAT

Sequence 2770

CCGGGCAGGTACAGTTGGACCTGCTGGCATTGAGGCCCTCAGGGTTCACCAAGGCCCTG
CTGGCCCCCTGGTCCCCCTGGCCCTNCTGGATCTCCAGGTGTAAGCNGTGGTGGTTAT

Sequence 2771

CCGGGCAGGTACTGTAGATTGAGATATAACAAAAAGATGATTTCTGAAATAATATTGGGA
AAAGAATTTACCGGATGGTATTTTGTATCTTGCACACCTCTGTTGTTATGATGCTATAA
GGCAATCTTGTCCAACAGCAGCTCACAGGCCACATGCCACCCAAGATGGCTTTGAATAG
GGCCCTATACAAATTCGTAAACTTTCTTAAAACATTATGAAATTTTTTTTTTTTTTTTTT

ACAATAAGGCTCTTGAAATTGTCATTACTTGTGTTTTCTATACATTCATCTGTGTGAA
AGCCTTTTTCTTCTTTGATTTAAAAAATTAACCTACAGTTAATGGTTAGAACTTAGA
ACTAC

AGGTACACTCAAAGGCTATGTTCTCTCTCAGGACTCAAGATGAATTACTGGCAGAATTCC
TCACTACATCCTTTAATGGAACCTCTGTCGGTCTCATCATCAGTGCTTTCATATTCTG
ATTCTTCACTAGATAATTCCTCATCCTCGTCTGGCAAAGGAGTTTCTCAGGTGGCTGAG
GAGATGTGGGTGGAAGAGGTGCATGCAATGGCATATAGTCTTCATACATGGGAGGTGCGG
CAGTAATTTGGTCCAAAAGGTGTGGGCAAATTCATTTTATTCATAAGATGAAGGACCTGTN
CCTGCCCGG

CCGCGGTGGCGGCCGAGGTA

CTCAATGTTTAGCTCCCACTTAGAAGTAAGAACATGCCCA

GCACCTTTGGGAGGCCGAGGTGGGTGATCATGAGGTCAAGAGATC

NAGACCATCTTGGCTAACAANGTGAAACCTGTCTCTACTAAAAACATA

AAAAAATTGGCCCGGGTGTGGTGGTGGGCACCTGTAGTCCTAGCT

ACTCGGGAGGCTGAGACAGGAGAATCGCCTGAACCGGGGAGGTGGAGGT

TGCAGTGAGCTGAGATGGTGCCCAACAAGAGGGAAACTNCTTNTN

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CATAACTTTAAATGGTCACCCGCGTNCCTTGCCCGGGGCGG

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGAAGAATAAAGACCATTTTTATTCTA
ATTTAACTCAGAAATTATTATGCTTATTCAATTTAACTTTGCGTGAAAGGTTAAAGA
GATAAGAAGGACAGATTATAATTGCTTAATATTGCTATGGTAACTTCCATTCAAATACCT
GTGAGTCACCAGAAGTCAAAAAGGTAGCCAGCATTGCAACACAGGATGGATCATGCAACA
GAACTAGCACCAGGTTACCTTATCTTATAATATTATTTGCTGTTAAAATGAAATTTAA
AACAGCACCAAAAAGTTAAGTTGGGGCTAAAAGTGTGTGCAGGAAAGATTTCATATAGCA
G

TGCGGCCGCCCGGGTNGGTACCAAAGCCAGATCCTCCTGTTTTGTAGCAGGAAGCCCTT
 TATTAGTTNNTCTCTATCAATCCATCTTTNATAATNCCAAAAATAGGATAAG

CCCACGCGGGCGAAATTTTGGGGAGGGCAAAACACCCCCGCGGGNGGGCCGGGGCCCCGCC
TCCNAGTAAACCTAAGAGGGGGAGGNTNTTCCAANNCCCCGCAGTNNNTTAAAAANCCCC
ATCAAGGCCCNAAANCGBAANAACCCGGGGGGGACCCATCTNAAGGGGGGGGGGGGGCCCCC
CGNGGNACNCCCAAGCCAANNANGGNNNNCCCCCGNAAAGNNGAGGGGGGGCGNAAAANA
GGCAGCCGCCCNCCNGCCGNAAAAANCAAGGGGGNCCAAAAAGNCAGGGGGGGACCCNG
GGCGGGGGGAAAAAAGGGAAAAANCCCCGCGNCCAACCAAAANNNCNCANCAACCAAAACCA
ATAACCAAAAGCCCCGGGGGAAGGCCAAATAAAAANNAGGGGGNAAAANGCCCCCGGGG
GGGGGGGGCC

[illegible]

ATAGGGCGAATTGGAGCTCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTT
TTTTTTTTTTCCNCCNAACCAGTCTAACC GCANGNCAATTAGTTTTNAAAAGTCTCT
CTCTTCTCATGTTTTTCTGCTTTGAAACTCAAGNGTCTCTTTACTTAATANATCAA
GATCCCAACTAATTTGACATTAAATCAAGACTCTNTACAAGTNGACTATCNCTAACNGG
CTGGGAGCACTTCTGCGGAA

Sequence 2779

TABLE 1
453/467

ATTGNAGCTCCCCGCGGTGGCGGCCGAGGTACATTGCTGGCCTTTGCCCAAATTATGCTT
NCCCCATTTGGTATGACCTGACACCATTGTGATCAGTCTGATGACCTGGCAGCATCCCAT
CTGCCTACCCAGTTCACNTTGTCTCCATTTAGGGCCTCTTACAGGCAACTNCTNACATA
TATTTTGGACACTGACTCATGCCTTCTNAGGCTNAGCTAACATCAGCCCATTCATTGATN
CAGCAAGACAATTTGAGAACCCTATGTGCTCTGCCAGAGTGAATAACAAAACCGCAAGT
ACCTNCCNGGGCGGNCGGTCTAGAACTAGT

Sequence 2780

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTNTNCCTAACCCAGTTCTAACNCAAGTCAATTAGTTTTTCANAAGTCTCT
CTCTTCTCATGTTTTTCTGCTTTGAACTCAAGNGTTNTCTTTACTTA

Sequence 2781

GGGGGGGGNTTTGGGGGGGAAAAAGCCCCGGGCGGGAGNGGACAGAAAAAGANNTNGGG
GNNGNGAGGGGGTTAGGAGNAANCCCNNGNGGGTTTTCCNAAACCCCGAGNGANGCCGGG
NCGGCNNGCGCGCANNGGAGGGCAGNGCTATGNANCCGNCNNGGNACNCCCAGGCCCN
GGGNCCACGNGGCCCNCCGGCACGNACNGNGCCGCNAAACCNCGGNAGGNCAGGCGAN
GNANCCNCNCGCANAANNGAAGGAAAAAAGGGGAAAAAGCGGGGGCAAAGAACCAACAAC
NCNGGGGGGAACCAACAAGCNAGGGAAACCCCGNGAGAANAANANANCNGGGGANAANNNNGG
GGNGGANAGNAANAACAAAGGGGAAAANGGCCCGGAGGCGNGGAAAAACCAAAAAGAGAG
GNNAACGGGGGGCGGNNAANNGNACCANNGGCGNAAAAAAAAAAGANAAGAGGGGCNN
GGNGGGGGGGNCGNAAAAANAACACACGGGACCCCNNAAGGGGGANACCCNCNCGGG
GNGCCGGGGGGNCCCAAGNAAAAACCNAAAGGGAGGGGNANNNCCCCCCCCCGNGGGACC
CGNANNAANGGGAAAAANCCCCGGAANGAAAGNCAAAAGGCCCNNGNAAACCGGNAAAAA
ANCNCGGGGNCAGAACCCCCCNCAANAANGGGGGGGGGGGGGGCCCNAGGGGNAAACCCCCA
AGGCCCGGGGGGGGGGNGNCCCCCNNNNCAANNNNNNNNNAAAGGGGNNNCNAAAAAA
AAGCCAGCCGGCCNGCGGGNNCGGGAACCAACCGG

Sequence 2782

TCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCATGCCGATCTCTGAGAAGTTNTGTTGCA
CCACTGTGAAGGTCTAGATGCAAGCTTGGCTCCCTCAGAAAGGCGCTTCCCTTTTGCATG
GCTGAGGATCCTTGAAGGAACCTGGTCAGTCTCCGGTTCAGCTTCCGACACCAGAGTGGA
ACCCAGTAAGCACCATCAGGAATGGATTTCACTACAAGTGTGGATAACTCTGATTTTCAA
AGGAGTAGTTACTTGCAAATTACATCCTTGCTGAATTCAGGAGGTATGAAACCTATTTT
ACCATGTTAGAAAACAGCCAGGATTTTCTCATTGCTCTGCCATCATATATGTCTATGAC
TTGAGCCCTTATTTTTCCATCTGCAAAACAATAATGCCTATATGTCTTTGCATATAGATT
TGGAATCTTTCATTCAAGTTTAGTAGGATCA

Sequence 2783

CCGCGGTGGTGCAGCGGCCGCCCGGGCAGGTACTTTTCTTCTTGAAGTGAGTTTAGATCA
CGTTTCAGCAAACGTCTCTGGAGCTCCTTCTCTGGGGAAGGAGCAGCGGAGGGCTGTC
ATCACCCTGCACTCTTCCAACCTTCTCTTCTGCTCATTACCCAGTTCATCCTCATCTG
ACCATATTACTCCAGGAACCTCCCTTTTCCCTTGTAATTCCTGTTCCATTTTGGCCAAA
CCATGGTTTGCCTCTGCTGCATTAGTTTGAAGTCATTTTTTTCCAGACATTGTGGCGGT
AGTTCCAGATGTCCGAAAAGATGAAGTTATCAGTGCACGAGCAGCCAGGGCTTTTCTTT
ATGTTGATTACCTTAGGACACAGCCCAACAATGCCTGCAATTGTCATTAGCCCGTGAAG
AGGTCGCTTAGGGCTGCCACAGCACAGAGTCCCAGCTGCGCCCGTTTCTTCCCCCCCC

Sequence 2784

CCGCGGTGGCGGCCGAGGTACTAATTTTTTTTTTTTTTTTTTTTGTATTTTTAGTAGA
GACGGGTTTACCTTGTTAGCCAGGATGGTCTCTATCTCCTGACCTTGTATCCGCCAC
CTCAGCCTCCCAAAGTGCTGGGATTATAGGTGTCAGCCACCGCGCCCGGCCTGAATATCT
TTTTATTTTTAAGCTTCAATAAATCTTACTGACATCTAATTGATAAAAGTTGCACATA
TTAATGTATACATTTTGATGAGGTTGGACATATGCATACACTNGTGGTACCTGCCCG

Sequence 2785

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT

TABLE 1
454/467

GAGACGGAGTTTCACTCTTGTCACCCAGGCTGGAGTGCAATGGCGCAATTAGGGTTCCT
GCAACCTCTGCCTCCCGGGTTCAAGCAGTTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGA
TTACAGGCATCCACCACCGTGCCAGCTAATTTTTGTATTTTAGTAGAGACGGGGTTTT
GCCATGTTGGACAGGTTGATCTCAAACCTCCTGACCTCAGGTGATCTACCCTCCTCGGCCT
CCCAGAGTGTTGGGATTACAGGCATGAGCCACCATGCCAGGCTGCTAATTCTCTTTTTA
GTGAGTTAGGGAACTGAGCCTCAGAAAACCTAAACGATTTCTCAGAAAACACTCAAGTGA
TAAAGTGGCCCCATTGGAAAGGAGGTTTTATCTTCTCATTGGCAGGCCAGNGTTCATT
GCACAATATCATGCTACCTCTTGGAATCTTTAAAA

Sequence 2786

TCTTAGGGCGAATTGGAGCTCCCGCGGTGGCGGCCGAGGTAATAATTTTTTTTTTTTTT
TTTTTTTGTATTTTAGTAGAGACGGGTTTACCTTGTTAGCCAGGATGGTCTCTATCT
CCTGACCTTGTCATCCGCCACCTCAGCCTCCCAAAGTGCTGGGATTATAGGTGTCAGCC
ACCGCGCCCGGCTGAATATCTTTTTTATTTTAAAGCTTTCAATAAATCTTACTGACATC
TAATTGATAAAAGTTGCACATATTTAATGTATACATTTTGATGAGGTTGGACATATGCAT
ACACTCGTGGTACCTGCCCG

Sequence 2787

CCGCGGTGGCGGCCGAGGTACAATACAATCTAGATGACGGTGCAGACTAAGTCAAGAACT
AAAGTTGTGCAGTAACCCGAGTTAAGGCATGAATGCGGACACACACATGCACACACACAG
CACCCATGCTATCAAGACACAGGATTTTTTCAGTTGCCTCATGAGAGGCAACCTGGGCTT
GGCAGTTAATCAGAACTGCTGAGCATTCCAGAAAATGCCCCCCACGACTTTATGCTAACA
GCTGTGTGTATGTTTTAATCAAAAAATTAAGAAGAAAAAAACCTAAAAACAAAGAAA
AAAACAAACAAAAATCACCAAAAACCTAGAAACCCCTTAATCTCTTACAATGGCTCTTG
AGCATGGAACCTCATGTAGCAGCATCAATGGCTGGCTCTTTAACAATTTGGAAATAAAGG
TTGGTTTACTATGTATTTCTTTGGTAGTCATCACTACCAAAGTT

Sequence 2788

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTGCTTTNATGTCTTTA
TGTATTTATTTTTTTTGTAGACAGGGTCTTGCTGTGTTGCCANGCTGGAGTGCAGTGGC
CTGGTCATGGCATNAAGGCTCACTGCAGCCTGGACCTCCTGGTTCAAGNGATCCTCTTGT
NTGAGTCCCTGANANAAAACCCACCCCNCTACANAAATTTNTGGAAACANGGGCN
NNAANCTGTTNCCTANGCNTGTNTGGAACNCCTGGGCTCAAGGGANCTTGTANCCTTANC
CNCCTAAAANAGCTGGGANTTATAAGGCATGANNNAATTGTANCCTGNCCCGGCGGGCCN
CTTTANAAAAAGTNGGAANCCCCCGNCCTTGAGGAAATTTATTATNCAACCNNTNTNN
NAATCCCCCCCCCCCCNCCAN

Sequence 2789

CCGCGGTGGCGGCCGCGCGGCGGCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTAG
NAGANATGGGGTTTCACCATATTGGTCAGGCTGGTCTNGAACTCCTGACCTTGNGACCCA
CCCGCCTTGGTCTCCCAAAGNGCTGGGATTACAGGCATAAGCCCCCGTGCCCGGCCCA
TGGTATTATTTTATATAAAACGCAAGTTAAGTNTTTATGTGTGAAAACTTTTTTTGAAA
CTTTNTCAAAAAGAANTTNACTTATTNGTTAAACCNTTTTTTGNCCTAAGGGCCAAATA
NGNGAAAAAAANCCCNATTNNNCTTTTTANATTTTTNTTGGCNAAAAANTNAAAAAAN
ATTTNNCNNTTTTTTGGNGNNANTAAAAAAAAGGGTTTTTTNNTTTTTTAAAA

Sequence 2790

TACTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCGCGGCGAGGTACTTTTTTT
TTTTTTTTTTGAGACGGAGTTTCACTCTTGTCACCCAGGCTGGAGTGCAATGGCGCAAT
TAGGGTTCACTGCAACCTCTGCCTCCCGGGTTCAAGCAGTTNTCCTGCCTCAGCCTCCTG
AGTAGCTGGGATTACAGGCATCCACCACCGTGCCAGCTAATTTTTGTATTTTAGTAGA
GACGGGGTTTTGCCATGTTGGACAGGTTGATNTCAAACCTCTGACCTCAGGGGGAATTAA
CCTTCTTNGGCTTCCAAAAAGGGTGNGGGATNAACNGGGTTGNGCCCCCCCCCCCCNGGG
GGGGGAAAAAATTCNNTTTTTTTNGGGGNNGGGNNNCAANNCCCCCNAAAAAAN
NNNNAAATTTTTTTTANAAAAANNANNCCTTTNTNAAAAATGCCCCCNCCCCAANG
NNGNNGGGNTTTTTT

TABLE 1
455/467

Sequence 2791

GGTCTTCTATGTGGGTGTCAAGGATATGCTCCCTCACGGCTTCCGAAGGCCCCAGCAAA
AGATCTAACATTCTTGCTCAAAGTTGCGAGAGAAAGTAGCACATGGAGTAGCTGGGTTGG
GGCGGCGGCCTCTTCTCTTCAGCTCCCTTAGCTTGGCTCCGTAAGTGGATCACTTGCCAA
ATGCTTTAGATGATTGCCTCTCAATAATTGAAAGGTGGTGGTAAGTTGTATTGCTGCACT
GTCGGTGTTAAGAGAAATTACTCTCACAAGAGCAGAGGCCTGAAGATTCTTTCTTCTGAA
GGGATGATGAGCCTGGACTCTCTGGACTCCTAGATTATGAACCTCTGCAGTGGACCATGT
CCTATTTTTTGGAGGGCGTTGGG

Sequence 2792

CCGCGGTGGCGCGGAGGTACCTTCAATACCTTTAGTTGTCTCCACACACGCGTGTGTG
TGTGAAATCTTCTACAATATCTTCCCTTTTTTAGACCATGTTCACTGTCAAAAAGGTGCT
TTAAGAGCAGTCTTTGGCTGGGCACGGTGGCTCACACCCGNAATCCAGNACCCTGGGAG
GCCGAGGCAGGCGGATCACCGAGGTGAGGAGATCAAGACCATCTTGGCTAACAGGATGGT
CTTAAGGGACAGNGAAACCCTGTCTTNAACTTAAAATACAAAAAATTANNTGGGCGTGGT
GGGNACCGCNCCTGTAATCCCANCTACTCAANGAGGCTNAAGGCAGGANTAATCACTTTG
AACCTGGGAGGTAGAGGCTTGAGTTGAGCCAAGATTGCACCCACTGCACTTTCANTCCT
GGGCCGAANAANAGCCANGGACTTTCATTTTTAAAAAAAAAAAAAAAAAAAA

Sequence 2793

CCGGGCAGGGACCNCGGGATGGTGNCAACTTATGACAGGACCCATGGGGCCCTCCCNATGC
ACACAGNACTNNTGGAATCTNATCCTTTTCCATGGCTCTGGCTCACACTTNCACAGNATT
TACTCCTAAATATGCCCCCTGNGTTCA

Sequence 2794

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGGAGGTACANATTTGAATGGCTTTGA
CTTTTGGCAGCTGCACAGNGCTAGGACTGGACCATGAAATATCTNTGGGCTNTGNCAATN
ACATTTGGGTAAANCTAANCCTGATCCCATGTGTTCTGGAAGAGAAGCCCCATGACATT
CAAAGTCCTTGACAATNTGACACCAGCTTTTNTAACCNTATAAGGCC

Sequence 2795

ACTACTATAGGGCGTTCGAGCGGCGCGCGGGCAGGTACGCGGGCACACTGAGGAATTATG
ACTACTATGCAAGCCGAGTTCAGAACTCTATTAATAATGCACTTGTTCTTAAGGGAAAG
TTTCATTTGGCCGGGCGCGGTGGCTCATGCCTGTGGTCCCAGCACTTTGGGAGGCCGAGG
CAGGTGGATCACTTGAGCTCAGGAGTTTGAGACCAGCCTGGGCAATATCGTGAGACCCCA
TCTCTACAAAAATACAAATTAAGTGGGCATCCTGTGATGCGCCTGTCGTCCCAGCTACTT
GAGAGGCTGAGGCAGAGGAATCTCTTGGGCCCGGAAGGCGGAGGTTGCAGTGGGCTGGGA
TCGTGCCACTGCACTCCAGCCTGAGTGACAGGAGTTAAGCCCTGTCTCAGAAAAAAGA
CAAAAACCCAAAAAGTACCT

Sequence 2796

TACAGAAGCCGGGAGCATAAAGACGTATAAGCCTNNGGGGTTGCTCTAATGTAGGTGAGG
NTAACATNACATTANATNTGNAGTTGNCGCCTNACTTGCCCCGCTTTTCCAGTTCGNGG
TAAACCTTGTCNTTGCTCAGCNTGCATTTTAATTGTAATTNGGTCCAACNGCGCTGGANG
GAGNAGGCTGGTTTTTGCCGTTATTTGGNGCCGCTTC

Sequence 2797

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGGAGGTACGCGGGATGATAAT
AAGATGCAATTTGAATCTTCATCATACGAAGGATACTTTCTAGCTTGTAAGGAGAGAGA
GACCTTTTTAACTCATTTTGAAAAAGAGGATGAATTGGGGATAGATCTATAATGTTCT
ACTGTTCAAAACGAAGACTAGCTATTAATAATTTGATGCCGGGCGCAGTGGCTCACGCCTG
TAATCCCAGCCCTTTGGGAGGCTGAGGCGGGCAGATCACCAGAGTCAAGTGTTCAGAGC
CAGCCTGACCAACATGGTGAAACCTCATCTCTACCAAAAAAAAAAAAAAAAAANGTACC
TGCCCC

Sequence 2798

CCGCGGTGGCGGCGGAGGTACTGAGCCCTTCATTCGCCAACTCAGACTCTTAGCTCTTT
TGTCAACTCTGGGCAAAGGTCAGCATTGGAATCGAGCGGCCGCGGCGGAGGTACATTTTC

TABLE 1
456/467

TCTCATCCACTTCCGATTCTCTTCATTGGCTGCAATATCTTTTTCTTCAAATCCTATTTT
GTTGGCTTCTAGGAAACCAAGCACATCTTGTTGTTTCTTCTTAATCGCTGTAGAGCCAGA
GGAAGATGCAATATATACACCGGATCACCATCCTGGGAACAGCGGCTGCGGTTGTTTGGG
TCCTGAAAAGGGCTGTGGAGCAGCTGCAGCAATGGCTGGAATCCAGCTAGGGGCTGAAAC
AACGGTTGGCAGAGAAGGGTGGGGGAAGTGGGAAAAAGGAAGAACTCGCCAGAAGCCCCG
CCTTCGNTTTAGCAAGCTTCCACCGAGCTCTTCTAAGCGCTTGAGTTNCAGCCAAAAAC
CCCCCCCCG

Sequence 2799

AGGTACTAACCTCTTACCTTCCAAGGTGGTAGAACATGCTTGAAAAGATAGTAAGTGAAA
AGGGGTAGCCAGTGCTTTACTCACAAGACTGCTTGAACATGAGACTCAAGGAGGGACCTC
AGCAGGCCTGGGGTGTTTCAGCAACTATTCTGGCCGGGGCATCTTGCAAAGGAGTTGCTG
TGACAGTAAGCTCTTCCACTTTGAGACCGTCACCTCAGCCACGGCTCCACCTGGGCTCA
GGAATGGTCAGGCAACACGTGGGGCCAGGATGGCGGTGGATGACTAAACTGCCGAAGAC
CGCGCCGCTGCGACTACCGAAGTACCTGCCCG

Sequence 2800

CCGCGGTGGCGGCCGCCGGGCAGGTACAAGTATGCAAGTTTTCTGTAAACAGATTACTT
TCAAACAGTTGGGAGCCCCAGGGAGATAATAGAAGGTATCCTACTCAACAGCAGTATATA
GAATGCTGTAGAAGAGGAATATTGTAAGAACAAGAACTATCTCTTGAAAATAAAATAT
GATAACTGAAATATAAATTTAAATAGGATTGGAAGCTAAAGCTAGGAAATTACCCTAGAA
TGTTTTTTGAGAAATGGAATAACCGAAGACCAAAAAATAAAATAAACTATGCTGTGA
AAGAGAAAGATTAGCATTGAGAAAGCGGGAAGTTGGTCCTGCTCAGATGCCGGTTTTCA
GATGCCTTATTCTAAAAAATAGNGATAGAAAACAAATTTCTACAAAGCAAAATTACAATA
AATTTA

Sequence 2801

CTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGACGGGTGCCTGTAG
TCCCAGCTACTTGGGAGGCTGAGGCAGGAGAACTTGTGTAACCCGGAGGTGAAAGTTGC
AGGGAGCCGAGGTTGTGCCACTGCACTCCAGCCTGGGAGACAGAGCAAGACTCTGTCTCC
AAAACAAACAAACAAACAAAAAACCCCTGTAGCTTGGGATCAGCCTTCTCTTCTGTTGTT
TTTTCTTTAAAAAATAAAAAATTAAAAATAGGCTTCAAGTGATCCTCCCGCCATGACCTCCA
AAACTGCTGGGATTGTAGGTGTGAGCACTGCACCCAGCCGTATGTTTTTTTCTACATAAA
AAACAGCACAGGATTATCTTCCAAAGCTAACAAATATGTTCAAATAACCACAACCCCAAN
TNNAAAAAAAAAAATNAAGTACCTGCCCGGGGCGGCCCTCTAAAACTAANTGGGATCC
CCCGGGGC

Sequence 2802

NNANGNCCNNNAGNGAGGGGAAAANGCGCGCCGGGCGNAANCAAGGACAGAGCNGNNNC
CCGGGGGAAAAGGANANNCGCNCACAANACCACACAACANACGAGCCGGGAGCANAAAGN
GGAAAGCCNGGGGGGCCNAANGAGGGAAGCCAACCCACAAAAAANGCGGGGCGCNCACN
GCCCGCNGNCCAGGCGGGAAACCCGCGGGGCCAGCNGCAANAAAGAAAAnnnnnnnnnnn
nnnnnnnnnnnnnnGNNNGCGAAAAGGGCGCNCNCCGCANCCCCGACACCNAACGCNG
NGCNCGGNCGGNCGGNNGNGGNGAGCGGGAANAGCNCACCCNAAGGCGGGGAA

Sequence 2803

NCCACCGCGGTGGCGGCCGTNCGGGCAGGTACTCCTTTCAGAGGGTCATCTCCTCCACAA
GTATTTTTTGTCTTTGGCTGGTCTGGGTCCAATGCTGTTGCCATCCCCAGCTTCAGAC
TGTTCTCCTTGTTTTGGAGAACTTTCTTTGGACTGTATCTTCAGAGACACTCCTGGTCAA
GGGGCCTCAGAGGACCCAAACGCTCTGAAACAGCGTCTTAGCTCATCGCCGAGTGTGAGC
TCTAGCTCTTCGGAGCGCTTCTCTCCCCCGCGTACCT

Sequence 2804

CCGCGGTGGCGGCCGAGGTACAGAGAAAAATATTTTTTAAAAATCTCATCAGGCTAGGTGA
GGTGGCTCGTGTCTGTAATCCAGCACTTTGGGAGGCCACGCTGGGTAGGTTGCTTGAGT
CCAGGAGTTCAAGACCAGCCTGGCCAACATGGCAAAACACCGTCTCTACAAAAATAATAC
AAAAATTAGTGAGGCATGGTGGCACACACTTGTAGTCTCAGCTATATTACTTGAGAGGCT

TABLE 1

457/467

GAGGTGAGAGGATCACCGTAAGCATGGGAGGCAGAAGTTGCAGTGAGCCTAGAATGCGCC
ACTGCACTCCAGCCTGGGCGATAGAGCAAGACTGTNTCAAAAAAAAAANATTTGGGGAAT
AAAGGAAAGTTCTGCCCCGGGGCGGGCCCGNTTNTAGAACTTAGNNGGATCCCCCGG
GGGCCTTGCAAGGAATTTNCGATATCNAAGCTTANTTCGANTCCCGTCCACCCTNGAAG
GGGGGGGGCCCCGGNTACCCCAAATTTT

Sequence 2805

TAGGGCGATTTGGAGCTNCCCCCGGTGGCGGCCGCGCGGGCATGGTACTTTTTTTTTTTT
TTTTTTTTTGGCAGCTTTTCTAAGCAAATAGATTGTCTGAATTAGTCACAGAATAATTT
TGTGAAAATTCATGTTTAAGTAGCAACTACCCTTTCTTTTTTATATATTTTAAAGGNAT
TAGTTTATCTTCTTAAGTGGNGCAGTCACCTAATGTTTTTATTAATCTTCGACCTGGA
GAGNGAAATACCTGATATTTCTAGAAAAAATTCTACTCCTCTGATTATTTGAAATGCTGA
GGAAATGTCCCTCCCATAGTAAACTTGTAAATAAGGAACTATATCATATTCAGTAGCT
GNGTTCTGTTCCATCTTTT

Sequence 2806

CCGGGCAGGTACATTCTCTGTTTCTTACTTAGTTCTTAAGGATATGTGTTTATCCATTCT
GTCGCTGGCTCAGAGTTTGCTTCACTCTCTAGACCAGAGTATAATTTTATTTGGCAGTCT
CCTATACAAATATGCATTTAAGTTTTTGACACGTACGCGGGGGACTCAACAGAAATGGG
TTTCCAGAAGAATAATGAAAAGTTGTGGGTAGGAAAATGAATCATTTGGACTCTTCAATG
AAATGGAGTGAGCCCAGGAGAGCTCAGCCAACAGAGGCACTCTGGGAACCTGTAGTAAA
GCCAGGCTGGCCAAATGCCATTTGATTTTGAACCTCGTAGGTCCCCACTCACCTCTGCC
AGGAGCT

Sequence 2807

AGCCTCACCCGCGGTGGCGGCCGAGGTACCCCGGGTGTTCCTTTTTGTTCAAAGTCTATT
TTTATTCCTTGATATTTTCTTTTTTTTTTTTGTGGATGGGGACTTGTGAATTTTCTA
AGGTGCTATTTAAACATGGGAGGGAGAGCGTGTGCGGGCTCCAGCCCCAGCCCCGCTGCT
CACTTTTCCCACCCCTCTNCTCCACCTGCCTTTGGCTTCTCAGGNCCTCTGNCTCTTC
CCGACCTTCTCTTCTTCTTGAAAACCCCTTCTNCCACAGCTTGCAGCCCCATCCTCCCC
GGGCTTCCCTNCCCTAAGTCTGGTCTGGCGGTCTCTNCTGCTCCCTCTNCTGCTCCCTGNTTCCCGGGNTTTCNAGAGGA
CAACTNCCCCAAAGGCCCAAAGCAGTTTTTCCCCCCTAGGGGGGGGGGA

Sequence 2808

CCGCGGTGGCGGCCGCTCGGGCAGGGTACATGCCACCACGCCTGGCTTATTATTATTGTT
TTGTTTTGGAGACAAGAGTCTCGTTCTGTGCCCCAGGCTGGAGTGCAGTGGCACAATCTC
AGCTCACTGCAGCCTCCGCCTCTGATTCAAGCAATTCTCCTGCCAGAGCAGCTGGGAT
TACGGGCACGTGCCACCATGCCCGGCTAATTTTGTATTTTAGTAGAGATAGGGTTTCA
CCATGTTGGCCAGCCTGGTCTCGAAGTCTGACCTCAAGTGATCTGCCACCTCGGCCTCC
CAAAGTGCCCCGAGGTTACAGGCATGAGCCACTGCACCCGGCCTATTATTATTAAGTCTAGT
GTTTGCTAAGTGCTTATAGATACGGACTTGCTTAAATCTTATAATAAGTCTGAAAGAT
GGGGTGATAACCTCATTTAAGAAAT

Sequence 2809

AGGTACTGTAAATATTACCATTATTTAAATGTTGACATTTCTGCATTAAGTAGAACTT
TCTAAATGCCTAAATACCACTCAAACATGACTTAAAGAAATGAATGACTCACCCTAT
GACCTTCAAGAGTCTGATTCATAGAAAGGTTACTGGGGGCTGCAAGGCCCTCAATTTG
CATCATCTGTCTGCGTCTCTAATTTCAAACCTTCAGTAATCCATCTTCACCACCGCATG
CTATGAACCTTGTCTTGTTCAGGATACACACTGCAGCTTACGTTATTGGGAATGG
AAATTTCTTGCTCAGGTAGAAGAACATCGTGGGATCCCCGAGAGGGTCACGGCGGCCGC
T

Sequence 2810

AGGTACGCGGGGGGCTCTGAGAGGAGTCTACCTTGCCTTCTTATGGGAAGGGAGACCCTA
AAAACTTTCTCCTCTTTGTCCTCTTTTTCTCCCCACTCTGAGGTTTCCCCAAGAGAA
CCAGATTGGCAGGGAGAAGCATTGCGGGGCAATTGTTCTCCTTGACAATGTAGCAATAA
ATAGATGCTGCCAAGGGCAGAAAATGGGGAGGTTAGCTCAGAGCAGAGTAGTCTCTAGAG

TABLE 1

458/467

AAAGGAAGAATCCTCAACGGCACCOCTGGGGTGCTAGCTCCTTTTTAGAATGTCAGCAGAG
CTGAGATTAATATCTGGGCTTTTCCTGAACTATTCTGGTTATTGAGCCCTTCCTGTTAGA
CCTACC

Sequence 2811

GGCAGGTACTTTTTTTTTTTTTTTTTTGGCAACATTGCCCTTTGATGTCCCCATGAGG
GCCAGGCCCAGGCAGAACCCATCCCATTTTATCCTTAAACTCANAAGGAAATTTGTCTAA
ATATTAAAGGATTAATATGGGAATAAAAAATGAACCTTAAACCCTGCCACTGATACACAA
GCTGTCTNTCTTAGAGTTCAATGAACACTTCAGGAGAGTATTTCCAACAATATTTAGATA
TTGGAATATCTAAATATTGTTGATTTAGATAACCACCCTAGATTTCTCACCACCCTAGAA
CATTTAGTGGGGAGACATCTTTTCTCCTTTTTCTGATAACTTGGTCAGAAGTGATTGAC
TGTGCAAATGGTATTT

Sequence 2812

NNCGGCGGCGGGGCGGGNACGCGGGNAGCNNTACGAGGGNCAGGAANCCCAGANGCCGC
NCGACCTGGAGNCAGCCTACAACGCNTTCAACCGCTGCCGGCANGCCCGAGCCCGGGGCA
CTAGCCCNNGCACAGAAGGGCAGAGNCNGAGGCGANGGCNCCNGNCCCNNGNCCGCCAC
ACAGGCCTTTGGTNTTNTCACACAACNCACGGGGCGGCAGCCGCCNGAAAGNAGACNGNC
CCCGGGGGCAGAACANNGGGGGCGGGGCCCNCCCCACAANAAAGANGCNCNCCGACAAA
AAAAAAAAAAAAAAAAAAGNACCNCGGCCGCNCNAGAACNAGGGGANCCC

Sequence 2813

CGGTACCCAAAGCTTTTGGTTCCTTTAAGTGAGGGNTNAATTGNCGNCGNCTTTGGCCGTA
ATTCAATGGGTCAATAGCTTGGTTTCCTGTGGTGNAATTTGGTAATCCCGCTTCAACAAA
TTCCACNCAACATACGNAGCCCG

Sequence 2814

CCGGGCAGGTACGTTCTTTTNGCTTTTCTTTTCNGTAAGATGGTCTTCAGAGCTNCTTAA
ACACATTTAGAAAAAGTTAAACCCCAAGACNCTTTGGGGATAGGTTAATTTTAAGANGC
CCAACCTTTGGACTNGGATTAAAGGAANTACCTTAAAAANCCCNNGNAAAAACAATTATTT
TTGGG

Sequence 2815

GGCGGCGGCGGAGGTACAGAGAAGCCATCANTTTAGAGGGCAGCANAAAACCAGAAGCCN
GNTTTGATCCCTNAACACCAAGANGCCTNTAACAACANGNCACCAGCACCCCCAGGAAGG
CCAAGGAGTCCACAGAAAAACCTAGGGNNAGACCAA

Sequence 2816

GCGGCGGCGGAGGNACAAGNAANCNCCTTTTTTGGGGGGGGGAAAAACCCCCCNCCCCN
NNNNCNACCCAGANGAGGAGGGTTTCNGCCCCCAGGGGAACANCNCNAAAANCAGCNCG
GCCNNNGNCGGGACCAGNGCCAGNGGACAGCCAGNGNCCNGGCCAGANGAAAGGCNGCC
GTTTTTTTTNTTNGGGGGGGNNCGGGGGGGGGCCCCCCCCAAAAAANCAGCCACCACC
AGGNNGGGNNGGGGAGGA

Sequence 2817

AGGTACCCTGAGGTGCTCCGCTGGGGACTCTGCTCATTCTGGGGGTGCAGTTGACGGCTG
GTCGTGATCTTTCCCGTAATCTGTCCCTCTTACGGAACCTAGTCTCCCGTTCTGGCCA
TGGCCTTTCTTCTTGACACTGCTTAGGANCCAGAAAGAAGTATTGTTATCAAATCTT
AAAGCCTTAGGAAGAAAGTCNAGGGAGTGGGAAAACCAGGCTTCTGANAAAGAATACCTG
NTTGGCCACCTGNATCTTCNAGGNACNCCACGGAANTCCCGGGCCCCCTTCCAATCAGG
NAAGTCCGGNAATCTCTGATGGTCNATCGGTTTCNATGGCCAACCTGGCCAACCAAGTTTGA
AAAAAA

Sequence 2818

CCGGGCAGGTACTGTTCTGTTGGCCGAGTGGAGACTGGTGTCTCAAACCCGGTATGGT
GGTCACCTTTGCTCCAAGTCAACGTTACAACGGAAGTAAAATCTGTGAAATGCCACCCA
TTGAAAGCTTTTGAAGTGAAAGCTTCTTTCCTTGGGGACCAATGGTGGGCT

Sequence 2819

AGGTACTTTTTTTTTTTTTTTTTTGGGTTAGGATGGTCTAACCTGATGGGTTGTGT

TABLE 1
459/467

TTACAGTGGGGTTTCCCCCAAAGGTTATCTTCCTGCTTCCTCTGTAAATAGGGCAGTTG
CTGCAACAGATTAAATACACTCGGGCCACCTGTGGGTAGTGGGTCAAGAATTTTGGACA
GAAAGGCTATAGGCTGCCGGTGGCCCCCGTGTGTTTGGGTGAGCACCCTAGAGCTATCC
CTTTATTCACATTGACGAAGAGGTGGAATGGCTGTTCTAGGGAAGGTAGAACTAAGGCAG
TTATGAGCAGGTGTTTTAATTCCTCTACTTGTTGGACCTCCCGTGGT

Sequence 2820

AGCTTATCGATACCCGTCGACCTTCGAGGGGGGGCCCCGGTACCCAGCTTTTTGGTCCCT
TTAANTGNNGGNTAAATTGGCGCCGCTTTGGGCGNAANTCANTGGNCANTAGCTTGGTTN
CNTGGTGGTGNAANTTGGTAATCCCGNCTTCNACANTCCACACANANNACGAAGNCCGG
GGAANCNTAAAGTGGNAAANCCTGG

Sequence 2821

CGGCCGCCCGGGCAGGTACCATCTCTTGGGAAAACCATGCTACCTCTTCTCTCTGTTCTC
TATTTTGCCACTAGAGAAATAGAAAATAAGGCTGGGAGCAGTGGCTTATACCTGTAATCC
CAGCACTTTGGGAGGCTGAGGCGGGAAGAATCACCTGAGGTCAAGAGTTTNAAGACCAGC
CTTGACTAACANTGGTNGAAAACCCNCGTNTTTTTNTTTAAAAAATACC

Sequence 2822

CCGCGGTGGCGGCCGAGGTACTCCAATCCGGGTGACAGAGGGAAGACTCTGTCTTAAAAA
GAAAAAAAATCAATAGAAATCGGTTTTTATTTATTTATAGTATGTGCTTTGAGTGGTTC
TCAATCAAATTGATTTTTCCCCCTCCAGGGGATATTTGAAATATCTGGAGGCATTTTTG
TTTGCCCCATCTTTGGGTATCATATTGGCATCTAGTAGGTAGAGGCCAGGGTTGTTGCTA
AGCACCTATAATCCACAGGACAGCACCCAAAAACAGTTACCCAGCCCAAAATGTCAGTA
TTGTCAAGGTTGAGAAGCCTTAATTTAGATGTAATGTTAAGAGTTTCAAGTAATTTGGCCAG
GCACGGTGGCTCACGCCTGTAATCTCCTAGCACTTTGGGAGGCAAAGGCAGGCAGATTGC
CTGAGCTCANGAGTTCGAGATCACCCCGGGCAACAAGGTGAAACGCTCTGTCTACTAAAA
TACAAATCC

Sequence 2823

CCGCGGTGGCGGCCGCCCGGGCNGTACTCCTCTTGCTACCACCTTTGTTGCAGAAGATG
AAGGGGAGAGGGAGCTTCTCCCTATGGCCTCATGGCTTCTTGAGACAGATCAGTCCAG
CCAGATACAGAGCAAAGCAGCTTTGCATCACCGCGGGCCAGTTGCTGATGCCAGCTTTA
TGTCTAAAAAAGTGAAGCCTCAAGGGGGATGGAGGATAGCAAGAAGAATGGGTG
CCTTGGCCCCAGAGGCATTGTAGGGAGAGGAAGACAATGTATCTCATCAGGGTTCTCAAC
ATTATGAGATTATCACACATCACTATCTTTGGAGGGGCTGAGTGATTGAGTTATGGCTC
TGACTCCTCTCTGGGGGTGGAGAGTGAAAGATGACAAANAAGGCCATCTGTCCCCTAGGA
GACACAGTTTGCAGTATAAGACAGGACANAAGAGAACAGAAAAACAAATNCAACTGGAAA
AAAGGGGTGG

Sequence 2824

AGGTACCTTAGAGCAACATGCAAAGCTTCCCTNCTCAGCAATCCCAGGTTGGGGCCCCCT
GTCTTCCTATCGTCCTACCCGTCACAACCACCACTGCAGGCTTCTGATGCTCTGTTTTCC
TCCTCTGTCTCAGTTCAGTTGCTCTGAGTTAGAGAGGAGCTCTCTGGGACTGGAGCAAAT
GACTGCACCGGCCCTCATGGGACTTCCATTTCACTGGATTTCAGGGGAAAGCAGCACGTGT
TTTTGAGAGACCTTGGCAACGCAGGCGACCTTGACGTCGACCAAAANAAGAGAGATTTGG
AATGNTTGTTTACAGCCTCCGGTCAAAAAAAA

Sequence 2825

TTAGGGCGTTTGGAGCTCCCCGCGGTGGCGGCCGCCNGTCAGGTACCANNNCTTAGCAN
GGAANNNTGGACAACANAAGCTNTAAATCCTCTTGATCGNCACGNTNAATTTGCACTGAC
CAATCTGTTGGCACAGTAACTGGTTATAAGCTAAATTTCTACATTTTGGCTACAAGTATN
CCAAATNCACCTTTTAAAAAATCCTATGTNAGATGCCATCTGGTGTTAATGATTTGCACA
CCCCTTAAATTGAAANTATTNCAAATAAATCTNACGGATTTATATANNATNATTAATGNN
TNTATTTTAAAAAGACAATCTGANAATAACACTTCCCCTAATTGTTGTCTTAATAATGAC
CAAGAGCTGNNGAAAAATNATTCACACTGNTACGTCGTTNTGTTGGTTTGCTCACGGGGG
AAGGGGGGTTG

TABLE 1

460/467

Sequence 2826

GCGAATTTGGAGCNAACCNCGNGGGCGGCCGAGGTACTTCGGGGAGAGNNTNTCTNCC
NTCATTTTGAACNCCAGCGGCCTCTTCCCCTTCNNGGGGCTGCTTGCCCTGGGAACNCTG
GCACCTTGGGCTGNNGAAGGCTCTGGAAGTCTTCAAAGCTGGAGTCTGTCTCTCCTAAG
AAATCTGCCCAGTGCCTTAGANACAAGAAACCTGAGTGCCANAGTGAAGTGGCAGGGGCCA
AGGGAAAAAAAAAAGTTGCCCTNANCCNTNNGGGGAAAAAAAAAGNGCCCNNGGAAACCC
NGGGGGNCCCCC

Sequence 2827

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGGAACACTTGAGGTCATGAGTCTGA
GACCAGCCTGGCCAATACGGAAAAGCCCCGTCTTAACAAAAATACAAAAATACAAAAAT
TGGGTGTGGTGGTGTGCACCTGTAGTCCCAGCTACTCAGAAGGCTGAAGTAGGAGAATCG
CTTGAACCTGGGAGGCAGAGATTGCACCACTGCACTCCAGCCTGGGTGACAGAGAGACAC
TCCATCTCAAAAAAGAAAAGAAAAGAAAAGAAAAGAAAAGAAAATGTTGAGGCAAT
GAATATACAAACACATTTTAGATTAGCATTTGAATTAGTAACTGCATAAAAAAGATCCA
ACATGAGCTGACATCATCCAATCCATTGAGGGCCCAAATAGAGCAAAAAGGCAGAGGAAG
AGCAAATTC

Sequence 2828

CCGCGGTGGCGGCCGAGGTACAGAAAGAAGAGTATCCATTTCAACTACTAGGTAACTGC
CTTTGATGAGCTTGATTTTACCTGGGTCACTAATTCACAGAACCAATGTAGGTGTCTGG
GCGGAGCAAAATATGCTCCAATTGTGTTTTCTTTGATAGATTCTTTCAACAGACAGTCT
TTTCTTAGCATCTTCATTTTTCTTTATTTTGTGACTTGACATTTTTCATTTACAGGCTG
CAATGGTGACACTTCCATGGTGACGGTCGTGAAGGGGCTCAAGAACCCTGAAAGCGACTA
AACAGGCAGGACCCACGAGACCACCCCGACCAAGCCGNTTCTCCACAGACGCGCGTCC
CCGCGTACCCGCCCC

Sequence 2829

CCGCGGTGGCGGCCGAGGTACTTTAANTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TT
TTTTTTTTTTTTTTTTTTTTNNGGNNGNNGNANNNTNTTTTTAAAAANGGNAAAAAAA
ANNGGGGGNNGNNGNNGNNAANNNNNGNNGGNNANCCCCNNCCNNNNNG
GGNAANCCCCNNNNNAANNNNNNTTTTNGNGGNNNNNCCCNNTNTNAAANAACGGGG
TNAAAAAAAAAAAAAATTTTNGGGGNATTTTTNNNGNNNCCCCCTNANCNNGGGGGG
GNNTNTTNTNTTTTTNANACCCCGGGGGGG

Sequence 2830

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTGTGTTTGT
TTTGGTTTTTTTTTTTGGCTTGACTCAGGATTTAAAACTGGAACGGTGAAGGTGACAG
CAGTCGGTTGGAGCGAGCATCCCCCAAAGTTCACAATGTGGCCGAGGACTTTGATTGCAC
ATTGTTGTTTTTTAATAGTCATTCCAAATATGAGATGCATTGTTACAGGAAGTCCCTTG
CCATCCTAAAAGCCACCCCACTTNTNTNTAAGGAGAATGGCCCATTCNTTCCAAAGTTNC
CNNANGGGGANAAAAANANCNNTNTTTTNGGNAAATTTTTAAANCAAAATTTTTTAAN
CCCCCCCCCAAAACCTTTTTNTTTNGNNAANAAAAANAAAAAAATTTTCCCCCCC
CCNCTTTTTTTTTTTTTTTCACNCCAAAAA

Sequence 2831

CCGCGGTGGCGGCCGATGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTAAACCTTTGACTNTTTTTTAANGCCNCGGGNGGATNTC
NTTGCCCANCTCCCANNAATGTTTGCCCTNTAANTCTGTTCCACTTTTAGNGGNGAGCC
ACCAGGCCTTANCCATCCCGGGTACCTNGGCCGTTTTAAAANNAGGGGNATCCCCGGGN
TNNANGAATTTNNAANTNAAAGCTTNNNGAAACCNNCCCNNTNGNGGGGGGGGGCC
CGGGCNNNAATTTTTNTTTNNTTNAANANGGNAAAAAANGGNCCCCCTTGGGGNNA
AAAAAANGNAAAAANTTTTTTTNTNGGNAAAAAATTTTTTTCCNNAAAAAAT
NNCAAAAAAAAAAANAANGGGNGGGAAAAA

Sequence 2832

TABLE 1

461/467

CCGGGCAGGTACAAAGATTCTCACTGCGTGCTAAGAAAAACAGATCCAGGCCGGGCACGG
GGGCTCACACCTATNANCCAGCACTTTGGAAGGCTGAGGCGGGTGAATCACCTGAGATC
AGGAGTGCGAGACCAGCCTGGCCAACATGGCAAACCTGTCTCTACTAAAAACACAAAA
ATTTGCCGGGCATGGTGGCAGATGCCTGTAATCCCAGCTACTTGAGAGGCCAAGGCAAGG
AGAAANTTGCTTTGAACCTGGGGAAGGCCGAANGNTTGCAANTGAGCTTGAAGATTCCGGC
AACNAACTTGCACTTTCCAANNCCNTNGGGNTGACNAGGANGATAAGGACCTTCCNTTCT
NCAAAAAAAAAAAAAAAAAAGGGANAAAAAAAAAAAAAAAAAGGGNTCCCTTTTNGGCCCGGTTT
TTTANAACTTAAGTGGGAATCCCCCNGGNCCTTGNGNGGGAATTTGNNNTNTNNNAA
AGCTTTTTTCGAATCCCCGCCCANCCNTNNGNGGGGGGGGG

Sequence 2833

CTAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAAGGTACTTTCTTTTTTTTTTTTTTTG
AGATGAAGTTTGTCTTGTGCCCAGGATGGAGTGCAATGGTGCAATCTCAGCTCACTG
CAACCTCCGCCTCCTGGGTTCAAGTGATTCTCCTGCCTCATCCTCCTAGTAGCTGGGAT
TACAGGTGCCACCACACACCCAGCTAATTTTTGTATTTTAAAGTAGAGAATGGGGTTC
ACCATGTTNGGCCAGGCTGGTTTNAACCTCTGACCTTAAGNGAANCCCCCTTTGCCTT
NGGCCNCCAAAAAGGGNTNGGNAATNANNAGGGGGGNNACNCNCCCCCTTNNNCNNANAA
AAAGGGGGNTTTTTTTNTNTGGGGGGGGGAAANATTTTNAAGGGGGGGNGCCCCCCC
NNCCCCTNANAAAAAAAAANANCCCCCCCCCGNGGGGANNAAAAANNNTTNTATAAA
ANANTTTTTCCCCCCCCCCCCCGGGGGGGGGGGCCCCCCCCCANCTTTTTTTTTTTTTN
TAGNAAGNGNNNCAANCCCCCNAAAA

Sequence 2834

GGGGNAAACCCCGNGGCGGCCGCCCGGTTTGAACCNNGGTTNAAACCCCGGNTTTNA
ACCNCANAACCGCAAGANAACGGGNGNAAAAAAGGGAACANANCAGCNGTCCAAAGAA
AACAAAANGNGGGCAAACC

Sequence 2835

GGTGGCGGCCGAGGTACTGATCATGGAACCTCTCGGGGAGGAAATGATGTTTTCTTCTAC
CCATCTTATGTTCAATTGGCTGGGGCTCCTGGAACAGAAGACAGATTTACAAAAGAGAAAG
GCACACAAATTTATGTAATATAAGTTTTACATGACATGGGAGCCTTTATAAGGAAATGAC
CCAAGGAAATGGTTAAACCTGAGTGGTTTTGNGTTAGGTTTGATGAGCAATGAAAAGCTA
TGGAGAACTATGATAGGAGGAGTGTGAGCTAAACGCAATGAACTGGGGGAAACT

Sequence 2836

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT
TTTTTTTTCTCAAACGGCCTTCCTTAGTCCTGTAAAACCTGGAATGCACATAGTCCTGT
AATGGCCATCCCAGAAAGTGAATCTACATGATTATTCAAATTCAAATACCTAANAAAAAAA
ATCACTTGAAGTTNTGCAACTTCCCAAATGCAAATTCCTGANAAAGAACTTGACTGAGC
CAGTTCAACTTTCTGTATTGGATTANAAATCCTATCTTGCTGGCTGGTCTGTANATTGGG
TTGCTCTTGAGTCAAATGANCTTTTTTTAAAGTTAAGCCNCTTTTGGCCNTTNGGGGG
GGGGCCCCNCTNNGGGGGGGGNNAAAAAATAATTTNNCCCGGGGTTTTNTTTTTTTNCCC
CCNAAAAANCTNTTTTTTTTTCNAANCCCCCCCNAAAAAANNGGNCCCCCCCCCCCCCTNG
NNGGGGGGGGGGGGGGGGNTTTTTNTCCNCCCCCCCCCNCAAAAA

Sequence 2837

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGGGTTTTTAGTAGAGACAGGGTTTC
ACCATGTTGGTCAGGCTGGTCTTGACCTCCTGACCTCATGATCCACCGGCTTCGGCCTCC
TGAAGTGCTAGGATTACAGGTGTGAGCCACTGCGCCCAGCCCTGAGAAATAGTTCTTCTA
ATTGTCATCCAGTTTTCATCTGAGTCCTGTTGTTCTTTGGATATGTGCCCTTCAGAGCA
CAGCAGGGGTTGTTCAAGTCTTCCANAAAAAGCAGCTCTTGTTCTCCTCATGTGGTGGGA
GTGGAGTCAGAGCGTGGCTCAGGCCCCACATTCTCAGCTGTTTGGATCTGGGGACTCGAA
GTTTCTGGTGGTTACTTCTGAAAGTCTTTTCCAGGATAATTATTCTTGCTCGGTTTCTCT
GCATCTCTGACAGGCTGGTTTNCCTGCTTCCCCGCTT

Sequence 2838

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT

TABLE 1

462/467

TTCTTTTTTCTCTGTGGAAAAAGAAAGAATTTGACTTTATTTAGAAAAGTCTACAAAATA
CAGAAGACGATAACTCGCTTGCTGTAAGTCAGGAAATAAATAAATTCTAGGAGCCGGGCA
ATATTTTTTAACTTTTTTTTGGAGACAGGAGTTTGCTATGTTGCCAGGCTGGAGTGCAGT
GGTGCGATCTCAGCTCACTACAACCTCTGCCTTCTGGGCTTAAGTGATCCTCCTGCCTCA
GCCTCCAAGTAGCTGGGACTACAGGCATGAGCCACCATGCATGGCTAATTTTTGTATT
TTTGTAGAGACGGGGTTTCACCATGTTGCCAGGCTGGTCTCAA

Sequence 2839

AGGTACTTTTTTCTTTTTTTTTTTTTTTTGGAGACAGGGTGTATCTGTCAACCAGG
CTAGAGTGCAGTGGCGGGATTACTGCTCACTGCAACCTCGACCTCCTGGGCTCAAGTGAT
CCTCCCAGCTCAGCCTTCAAGAGTAGCTGGGACTGCAGACCTGCACCACCACGTCCAGCT
GCCCGGTTAATTTTTTTCTGTGGTTTGAAGAGGGGAGAAGGTCTCACTATGTTGCCAG
GCTTGTCTCAAACCTCCCGGGCTCAAGCAATCCTCCACTGTTGGCGTCCCAAAGTGCTTG
GGGTTACAAGGTGTGAGCCACCACCACTGGGGCTCTGCTCTGCCTTTCTGAGTTTTGG
GTTTTCTGCTTATGGNGGGGGAGCTTTGTTCCCGTTCTTCCCCACAAAGAACCAGGGAT
GTGGCACAAGCTTCCCTGCCCGTTTTTCTTTAACTTCAAGTTGGG

Sequence 2840

CCGGGCAGGTACAACCTGGAAACAGCCACCGGAGAGAGAACTGTCTCGCCTTCGCCGGCTT
TACCAGGGTCATCTCCAAGAAGAGAGTGGCCCCCACCTGAGTCAATGCCAAGATGCC
CCTAGAACACCAGCGGAAGCCTCCTCCACTGGGCAGACAGGCCCTCAGAGTGCTCTGTAG
GAGCTGTAGACTGGGAAGAGAGGCCAGGCGTGGTGGCTCACTCCTGTAATCCCAGCACTT
TGGGAAAGCCAAGGTGGGCCTTGATCACTTTGANTCCCAAGGAAGTTTTTGAGACCAGCC
TTNGGCACCATGGTGAACCTTTGTCTTTACCAAAAAATACAAAATTTAGCTGGGTGT
GGTGGTGCACACCTGTAGTCTTAACCTATTGGGGGAGGCTAAGGTAGGGATTCACTTTGAT
TCCAAGGAGGCGGAGGGTTTTGCANTTGAGTTTGGCANTTCAACACCCCTTGCAANTTNC
AGCCTTGGGGTGGACAAGCTTAAACCCTTTNTTTTCAAAAAAAAAA

Sequence 2841

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCATGTCAATGGAGTAAT
GCTCCCAGGAGAGTTATGGCTGCTCTGCTATGTCATGCAGGTTGTTAGGGAAGTAGGGGA
AAGCTAGAAGTTACAGGCCTTACCCAGCTCCCATGCAACCCAAAAGGCCAGTCTCACTCC
CACCGTGCCCCACCCTGACAGCACCAAGTTTGTTCAGGCAGTGAGTGAGCAGGGCTGA
GAACTTGTCCCAGGCTACCAGCCTGCCAGCTGAGAAAGAAAGCATGGCTTTTGCATCTTT
TTGCCTGTTGAGTCTGCGCACTGGATTTATGCCCTCCCTCGAGTTTGGCCGGGAGATT
ACGTTTTGGTTCAAGTGGTTACCAAAGTTTACTTGGGGAGGTTTCCTTTCTTTGGGTC
TT

Sequence 2842

CNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGGTACTTTTTTTTTTTTTTTT
TTTTGTATTTTAGTAGAGACAGGGTTTCATCATGTTGGCCAGGCTGGTCTCGAATTCCT
GACCTCAGGTGATCCGCCTGCCTTGACCTTCAAAGTGCTGAAATTACAGGCATGAGCCA
CGATGCCAGCCTGAGGAACAGATTTCTATATGGCAAATAATAAAGGCCAAATAAAATTA
ATGCTAAAATAGAATGAGGAAAGTATTNTTTNTTACCAGAATGGTTGTNANCANAAAT
GNTTTGACCAAGGGTGGNNTTNAAAAAACCCCNCTTNNATTTTGGGTTNTNCCTGGG
GGGNTNTNGGNNCATNAAANACCNTTTTANNNTNTTTTTTNNNNNAAAAAAANTTTT

Sequence 2843

AGGTACTTTAACTTCTTTTTTTTTTTTTTGGAGATGAGTTTTGCTCTTGTTGCCAGACT
GGAGTGCAATGGCGCAATCTCGGCTCACAACAACCTCTGCCACCCGGGTTCAAGCGATT
TCCTGCCTCGGCCTCCTGAGTAGCTGGGATTACAGGCATGCATCACTATGCCAGCTAAG
TTTGATTTTTAGTAGAGACGGGGTTTCTCCATGTTGGTCAGGTTGGTNTCGAACTCCCG
ACCTCAGGCGATCTGCCCGCCTCGGCCTCCCAAAGNGCTGGGATTACAAGTATGAGCCAC
CGCACCCAGCCTAAGATCCAAGATTCTTATGTTTTCTCTCCTTGCCTTTTGGAACCTGCC
CGGGGCGTGAGCGGCCCGCGGGCCAGGTACCAACNAGAAACNCAAACACCTTGNCAGT
NTNTCNAGGCACCNTTTCAAAAACCAAATTTGGANAAGGTGAAACNTTAACTTNATA

TABLE 1
463/467

TN GGCTTAAATTTTAA

Sequence 2844

ACCGCGGTGGCGGCCGAGGTACTTTTTNTNTTTATTTTTTTATTATTTTTNTGGG
GACGGAGNGNCCCTCTTGNTGCCAGGCTGGAGCGCNATGGCGTGATCTTGGCTCACTGC
AGCCTTCGNCTNCCGGGTATCAAGTGATTCTCCTGCCTCAGCCTCCCNAGTAGCTGGGAT
TACAGGCATGCNTNNACCATGCCCAGCTAATTTTGTATTTTTTAGTANCAAAACCGGGGG
TTTACCCATATTGGGTCAAGGCCTGGTCTCGAACTCCAGACCTCAAGGGTGGATCCCGC
CCACCTCGGCCTTTCNCNAAACCTGCTGGGGAATTACCAAGGCCGTTNAAGNCCAACCC
GNCGCCCTNGGCCANGGGGGACCTNATACTTCTTTTTTAAAAAAAAGACATTTTTGTN
GGGGGGCNTCACCACCNTTATATTTNAAAAATTAGGTTNCCTTGCC

Sequence 2845

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTCTCATCTTCTTTGATAATGN
GNGAAGCCAAGGATAGGCAGGAACCCCAAGTTCNTNTNTCCTGGGATTGTCACAAAATT
CCCCCTNTCCCATCGCATCTATTTTTGTTTGTNTTTNTTCCCAAAGAGGGAAAA
ATACCATGGGCTTTANAGGAATCATCGCTCACTGNGGGAACCTTGCCCCCTCCCAAGCC
ACCCCACTGNGCCCATAAACGTGCTGCCTGTAACCAATTGTTCTGTTGAATAACAATGC
GAGCTGAGGGGCTTTTTNTGCCTGAGCTGCAATANATTAGGCTGCTCCCTTTATGTGN
GCAANACATTACCCAAAAGC

Sequence 2846

CCGCGGTGGCGGCCGCCGAGCAGGTACCTCAGAATGTAAGTGTATGTGGAGGTCTTTAA
AGCAATGATTAAGTTAAAATAAGGCTATTAGAGTGGGGCCCTAACTCTAAATGACTGGAT
TTATATGAAGGAGCTAGAAGAAGGACAGACACACCAGGGTCCTGTGTGCACAGAGGGACA
ACCATGTGAAGAGGCAGCAAGAGGCCAACTGCAAGCCGAAGAGAGAGGTCTCAGGGGAGA
CCAACCTGCCAGCACTTTGATCTCAGGCTTCCAGCCCCAGACCAGTGATAAAATAAT
TTCTGCTGTTTAAGCCACCCTGTCTGTGGCATTTTGTCTAGTGGCCCTAGCAA

Sequence 2847

CCNGGGCGGCCGAGGTACCATNANGCTTGACGGGGCTGAAGCATGGTTTGTCCANAACC
CCAACCAAGGCTCTATCGNNCTCTTCTGNCACCTTTTTNCTCTTTTTCTTCTNCCC
TTGCACCTGAGGNCCTGGAAGGCCTTGATGAGGCCAGCAAACAGGCATTCTCACAGCTG
GGTTTATAGTCTTTGGCCCCCTTACTCAGTATCCTGGGAACCCTGGGCCAGGAAGTTAAC
AGTGGTCAATCANAAANTNCTGAANAAAATCCCCCTCCCCCTG

Sequence 2848

CCCCCGNGCNGGNNCANNTTTTGGGCNNTTTTGGGTTTTTTCAGNANGGTTNGTGGAGNA
TCCCCNGNGGTTTTTNNNAAACCCCCCNCNNAACANAGACCAAANGGGGGGNNNGNAG
GGGGGNGGGGNCNNTNAGAGAGGNGGGGCGGGGGCAGCGGGGGGNAAGNNGGNNNNNA
GGGGANGGGGAGGGGCNNNCCCCANACNNGGAGGNGGAAGGGGAAAGAACGGCNAGGGG
NAAAGGCCGGGGGGCCACCNAGCNCNGGGGGNNCNCNANGGGGGAAGGAACGGGGGAA
ACCAAAGGCCCNCCCCACCCAANAANGGCCNGGGAAAAACCCACANNNGGGNAAGGA
NAAAGGGGCCNANGGCGAAGGANGGCNCCCAAGCAGGAGCGGGNNGGGGCCGCAACNG
CCCCNAAAAANGCCCCGGGNNNACCCCAAGGGGGGANGGGGGNCANAAAGNNGGGGG
GGAAGGAACNGGGCCNNAGGGNGGCCCCNNGNAGANGNNGNNNGCGGAAANCCANGC
GCCNGGGGGGNNNANCCAAGGGGGNGGGA

Sequence 2849

GAGATGCAGTTCGATTNCATACCTANTGGGTCCCANTCCTNNNTNNGGNCNGTTGNGAAGC
CGGATAGTGACTGAGATCACTGGGTAGACCTTGTCACCTTGGCATTCTTGTCTGCCAAG
GTCCATGGCCATGGGGATGGGGACAATTTGAGTGGG

Sequence 2850

GGCAGGAACNTTCTTTNTCTTTTTNTNAAAGTNAGNGGTAATTTAAAAATCTGAAAT
ATAGGCTGGGCGTGGNGGCTTACGCCTGNAATCCAGCACTTTGGGAGGCTGAAAGTTGG
GGCNGGATTCATCTGAGCTCGGGAGTTCAAGGGACCAGCCTGACCAACATAGAGAAACCCC
GNCTCTACTAAAAATACAAAAATTAGCCANGGCGTGGTGNGCACCATGCCTGTAATCCCA

TABLE 1
464/467

GCTGTTTCAGGGAAGGCCCNANGCCANGANAAATTTGCNTGGAACCCCGGGGAGGGCCGG
GAANGTTTGTGGATGGAGCCCCGAAGATCANCCAATTTGNNNANCTNNCAAACCTTTGG
GNTTGAACAAAGAAGCCNAAAAANTTCCCAATTCTTTCATNAAAATACAANGAAAACNT
TANANAAAAATTTTTGAAAAATTAATGGGGACCCCNNTGGGAAANGAGGCCCNNTAAAAA
AAAAAAAAA

Sequence 2851

CNANCGGAAGGGGCCCCNGGGGGGGGGGANAAGGGCAAACCCNGGCTNAGCAACCAC
ANGGGGGGGCCGGAGCCNNGGGGGGGCCAGGACCAGGGGAGAGGGAAGCCCCAGCCNGAG
GCGNNCGCACCACNCCNAGCACCAGCGCACCAANACNGCAGACGAGGAAGGAAGCACAAG
CNCCCCACNNNACAAAGGGGAAACCGAGGCGCGGNNAGCGCGGNCCTGGGGACGGCCGCA
CAAGAACNAGGGGGACCCCCCGGGCGGCAGGAGNGCCGGNNAGAAGCCAAAACGAANCC
GGCGAACCCNGGGAGGGGGGG

Sequence 2852

AGGTACGCGGGATGCGCAGTCGTGAGTCCTCTTGCTCCTTGAGCGTCAACCTTCTTTCCC
TGAAGTGGCTGGGGTTCTGTTTCCTTCTTTGATTGACAACTTGTGTTAACCTCGCACA
TCTCTGGGCCAATTTTTGCTTGAAATGGCAGCTCCCGAGCAGCCGCTTGCGATATCAAG
GGGATGCACGAGCTCCTCCTCGCTTTCCCGCCTCGGGGCGACCGAACCTTCTGGTCAG
GCACCTGCCGGCTGAGCTTACTGCTGAGGAGAAAGAGGACTTGCCCGAAGTACCTGCCCG
GGCGGCCGCTCTAGAAGTAG

Sequence 2853

CGGNGGCGGCCCGCCCGGGNATGGTACCCTCTGTACGGCTTCTTTTNTGGAAGGGGA
ATTTCCCAACCCCGGGTGAGGCAATGCCCCGCCCTGCTCCGTGGGCTGCACCTGCTGTCT
GTCAAGCCCCAATGAGATGAACCTGTACGCGGGGGCCTGGGATCTCAAAATGGCGGGCC
CGTGCGGAACAGCGTNTGGGAGCANNATGTTGCCTNCTGAACAAAGCCGTTGAAGATG
AAGAATGGGCAAAATCGCCCCATACGGAACAAGCGCANCTNGGGAGCCCGATACCTGGC
NNGCGAACACCAACGGGAGAATTTGCCAATATGGATGTGACAGCGGTTCCCATTAAG
CGGTGATAGGGATTTTT

Sequence 2854

CCGGGCAGGTACGCGGGGTGGGCATTCTGGGTAACAGAGCTATTTACTTCCTGCGGGTGC
ACAGGCTGTGGTCTATCTCCCTGTTGTTCTTCCCATCGGACGAAGATGGCCCTGGAG
ACGGTGCCGAAGGACCTGCNNGCATCTGCGGGCCTGTTTGCTTGTTGCGGTGGTCAAG
ACTAGTACCACCAGNTTTAGAATATGATGGCTTGTTGACAACATGTTGATGTCATATGNT
ATCAAAATCGAAACGGNGTCANCTCCGAAGAAGGATGGGTTATTATTGACTTGCACCTTA
GCCTNTTCGCTTTTGCATGGGGATANCCATTTNGCTCATTNATGAAGTTNCCATGTANTG
TACAGGCCCTTGGGGNTCNTTTCAAAGGTNTNNNAANCTGCAGNTCCAGTTAAACCTTT

Sequence 2855

CTTTCATGTGATCTTTGTGGCAGTGGGACAGGAAGTAGGCGCGGGCCCTCAGGTTCTCCC
TATCGAAGCGGTCTATGGAGATAGTTGGATACTCGGCCATCTGCCCTCGAAAGAACTCA
TAGCGCCGTCTGATCCAGAGTCCGGGACCCCAAACCGCAGCTGAAGCCAAGGCCAGCCC
TGACNCGCCCCCGGTACCTCGGCCGCTCTAGAACTAGTGGGATTCCTCCGGGGCTGCAGG
GAATTNGATATCAAGCTTATCTGATACCGACCGACCTTCNAGGGGGGGGGCCCGTTACCC
AAGCTTTTTTGTCCCTTATAGTGGAGGGTTTAAATTTGCGCCGCTTGGGC

Sequence 2856

GGGCGATTTGGAGCAAACCCCGGGGGCGGCCGCCCGGNTTGGTACCAAAANTNCAAACNA
CCANTTTNGAANCCGGCGNNGACGNNGCGGNCCNAGCTACTCTGGAGGCTGAGNGGGGA
GGANCGCTNGAGNCTGGGAGGCAGAAGTTGCAGNAAGCCGAGATCATGCCACTGCACAAG
CTAGGTGACAGAAATGAGACTCTGTCTCAAAAATAATTAAGAGCCTCTGCCCCAACTCG
TTAAAGATTTTTATAACCACAACCTGCTGNTTCTGNGNAGATGCATCTGCATGCCAGGAG
CAGTAAATGCAATAAAANCATTTGGNTATACTTTGAACACAAAATAAACGGGTGAGGCTT
TACTTTGAAAAAATAAANAAGGGNCCTCGGCCGCTCTAAACTAGGGGGGANC
CCCCGGGCCGCANGGAAATCGATA

TABLE 1
465/467

Sequence 2857

ACATTAAATTTGCGTTTGCGCTCACCTGCCCCGCTTTTCCAGTCCGGGGAAACCTTGNCGTG
CCAGCTTGCATTTAATTGNAATTCGNGCCCAACCGCTGCNGTNGGAGAGGCCGGCTNTTG
CCGTATTTGGGGCGCCTCTTCNCGCTTTNCTCGGCTTCACTTGACTC

Sequence 2858

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTGTCTCAGCTTGGG
CTTCTTCCTCCTNCATCACCTGAAACACTGGACCTGGGGGTAGCCCCGCCAGCCCTCA
GTCACCCCCACTTCCCAGTCTTGTAGCTAGAAGTCTCTAAGCCTATACGTTTC
TGTGGAGTAAATATTGGGATTGGGGGAAAGAGGGAGCAACGGCCCATAGCCTTGGGGTT
GGACATCTCTAGTGTAGCTGCCACATTGATTTTTCTATAATCACTTGGGGTTTGTACCTG
CCCGGACACATCCAGTAGGCTAAGGGGATGCTTTCCTTTTCTGGGGTTTTTCGGGGGGTT
TTTTGGAGCGGGGAGAGGGATGAANGAGGTGCTCCCTTAATTTCTTTATTGAGAATGAT
GCCGTGGATACTTGAATTTAAGCANTTGTACATGGGCAGTGTCTACCTGGGG

Sequence 2859

AGGGCGATTTGGAGCTCCCCGCGGTGGCGGCCGGGCANNTACTTTGCGGTTTTTGGGACT
TGATTTTNGCAGAGGGATCGGGCACTGAAGGTGCAGTTCTCAAAATCACACCTGNAGGCT
GGCTCCTCGCTGTGGGTATCCAGGTGCTTCTGGAGGTCAATAAGATTCTTGACAGCTGTAG
TCACAACAGTCACATTTAAAGGGCCGGTCTCACTGTGACGAAAGCGCATGTGGTTGCGG
AGGGAGGAAGGCAGCGGGCAGGTGATGTACACAGAGGGCACTTATAGTGATTCACATGG
TTGCGCA

Sequence 2860

ATGCGTTGCNGCTCACTGCCCCGCTTTCCAGTCGTGGAAAACNCTGTTCTGCGCCAGCCT
GCATTTAATGGAAATCGGCCAAACCGCCNCCGGGGAGGAGGGCCGGTTTTGCCGTATTT
GGGNGCGCTTCTCCCGCTTCCTTCGCTCAACTGGACTTCGCTTGCGGCTNCGGGGTTCCG
NTTCCGGGCTTGCTGGGCCGAGGCCGGGTATTTCAACCTTCAACTTCAAAAG

Sequence 2861

CCCTAGGGCGTTTTGGAGCTNCCCCCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTN
CCCGGAGNTTTNTAANAAGATTTATTTAGCAAAAATACATATAGCCATTATTGCAAGACT
TAAATGAGATGNTAAATGTTCAACCCAATTTTCTTTCCTGGATAAGTTTTCTTTCATAT
CCCTGTGAGTTTTGAAAACATAATACCAGAAGAAGGGGGGCCCAATTCCACAGAGAGCTC
CCAAGAATGAGTTTCTGGGAGTGAGTCTGAAGTTGAGATAAACCTTTGCTGATCTTGCTT
ACGTTCAATGCATCTGGGCAGCGTCTTTGATGAGCCCTGGCGGTTAGGCTGGTGGCACTG
AAGCAGGCCTCCAGGGTCTCCTGTTAAGCAGGATTTTAAGGCCAACCTCTGC

Sequence 2862

CATCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTAAGTGGGA
GGCTGACGCAGGAGGACCGCTTGAGCTCAGGAGTTCAAGACCAGCCTGAGCACCATAGTG
AGACCTCATCTCTACTAAAAAATAAATAACAGGCATGGTAGCATGTGCCTGTAG
TCCCAGCTACTCTAGTCCCAGCTACTTGGGAGGCTGAGGTGAGAGGATCACTTGAGCCCA
GGAGATCGAGGCTGCAGTGAGCCATTATCACGCCACTGCACTCCAGCCTGGGCAACTAAG
CAAGACCCTGTCTCAAAAAATTTTAAAAAATTTAAAAAATAAGAAAATCCAAGCTAGGT
TGAAATCTGAATGTTGAGCAGNTCAGTGAGGCACAACTTAGCTTAAGAAAGTCAACCTT
GCCCACTTGCCATTTTGAAGGTTATTACTAGCCAAAATTACN

Sequence 2863

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAAAATTAGCAAGGAGA
CATTTTCTGCATTGTGAGAAATCAACATAGACACCTTAAAGACCCCTTTGAGAGTGTGGC
TTTTTGAACTTTTCAGATTTTGCTCAGTGACCTGCTAACACTTACGTGAGAGGCTCCAGG
TGTAATAGAATCTAATGGCAGAATCTGTAAGTGTAACAAGCATCTTAGGAGTGAGAGA
TCAAGACCACAAAATGTCCAGAGCTATGACCACAGCTATACCTACCCATAAAATACGATA
CTGGAGTAGGGTATTTTTGTCTTTTTCTTACCTAAGAGCTAGCTAATCAGGACAGGTGA
TGGCAGGTTCTGGAGCTCTACCAGGGCAGGTCTATTTTCTTTTTT

Sequence 2864

466/467

CGCAATTGNAGCTCCCCGCGGTGGCGGCCGAGGTCTAATTTGAATTTGTAATGAGTCTGA
TGGTATATTTCAATTTTTTGTCTTGAGGGACTGGCTGCTACATTGCAGAATATCTTATAT
CCCTGACTGCTTCCACTAAATGTCAGTGGTGACCCAATCCAATATTATGACAACTGAA
CATGCTTATGCATCCCTCATGCCTTTATTTTTATTTTGGGAAATCTTTCAGCTTCAGTT
TTTGCTGATTTTATGTGATTCCTTGTCTGCAATTCAAATTTCTGGGAGCCAAACAGTC
TCCTTGGTTCAGATTACTGTTTTTGACTAGAGCTTCTCGCTTCAGATTCTGTCATAAGA
TTATGGCTTAACCTATGGTTGTCTTTGATTTGGTGCCATATGAAATAAACATTATTTT
CTATGGCTATGTATTAAGAATTTGTGCAATTCGTTTTCTTAGAAGGCTGAGGGTGTG
TTGTCAGACACCATGACTGATGTGACAGGTGTATTTTATTATGC

TABLE 1

467/467

Sequence 2870

ATAGGGCGAATTGGACTCCCCGCGGTGGCGGCCGAGTCCTACCOCTTTACTTTTTCCCCAA
GACCATCTCAGGGTGGAGCATTCTGTCTAAGAGAAGAAAGATAAGGAGGCTCCCACCCAC
CTCTCCAAGAGCAGACATTAACATCTTTGTGCTTTGAAGAGAGTGAATTTGGATAGTC
TTGTGATTCTCAAGACTAACTTCCAGAATTATACTTTAACCCCTTCCAGATATGGTCCGC
CTTTGGCATTGTGTGTACCTGTGATGGGGCGTGTGGTTTCCGGTTGTCTCACCTTTAATT
GTCAACCTCCAGTGTATGACTCTAGAAATATGAGGAAAAGCTTTTCACTTTTAAAATTG
CCATTTAAATTTAGTCTATTA AAAACAAACCTAGAGGTCTTGGGTTGCAGTTGATTCAG
AGTATATTAATTTAGTGGGTCCCNAAGTATTACATNTATTTATATTCTGGAATGAAAAG
G

Sequence 2871

CCGCGGTGGCGGCCGAGGTA CTCTTCGTAAACCATGGAGAGCCAGCCCAATGCACAGCA
GTGGATATCATCTTTCTCAGAGTCCAGTATCACAGAATCACGACTTTGTCCAGCTGCAGG
TGCCTGCAGGTCACTGGCTAACTACTTCTGTGATGGGCTCTTCTTTCTGAGGTTCTGC
CAACTTGTCTACTACATAGGGTTGATCATCCTGTT CAGGAAATATTTCTTTCATTTGCTC
TGAGCTTAATATTGTAATTTGATTTGATCTGCTGGGTCTTTGGAGTCAGGACTGGTTT
ATCAGCAGTTTGATCTTCTGAGGTCTGGTATGTAGTTTGCTGGCCACAGAACCTTCAG
TGATTCACAGCCTCAATGCCATAAGGAAACTCTTT